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MARINE SAFETY INVESTIGATION REPORT 2024

**DIRECTORATE GENERAL OF SHIPPING
MINISTRY OF PORTS, SHIPPING & WATERWAYS
GOVERNMENT OF INDIA**

DIRECTOR GENERAL'S MESSAGE

**SHRI SHYAM JAGANNATHAN, IAS
DIRECTOR GENERAL OF SHIPPING
GOVERNMENT OF INDIA**



It gives me great responsibility and purpose to introduce this edition of the Maritime Safety Investigation Annual Report, compiled by the Directorate General of Shipping.

This report is a product of our systematic monitoring and analysis of maritime casualties and incidents reported through the year. Each event recorded—whether a technical failure, navigational error, structural mishap, or crew-related accident—has been examined not merely as an isolated occurrence, but as a data point that highlights our continuous effort to prevent future loss of life, environmental damage, and asset deterioration. The DGComm Centre, operating 24x7, remains central to our national casualty response mechanism, providing real-time coordination, support, and escalation on issues affecting Indian seafarers worldwide.

During the reporting period, we observed a concerning number of incidents. These trends point to the urgent need for stricter compliance with safety management systems (SMS), more rigorous audits of vessel preparedness, and continued investment in human element training, particularly in shipboard risk awareness. Accordingly, the Directorate is strengthening its post-incident investigation processes to improve the precision of root-cause determinations and to institutionalize learnings in a timely manner.

This report should not be read merely as a compliance document. It is a signal to all maritime stakeholders—shipowners, training providers, classification societies, unions, and seafarers themselves—that data-driven vigilance must be central to our safety ethos. Maritime casualties are not just statistics; each entry is tied to a person, a family, and a disruption of life at sea.

Our direction is clear: we are building a casualty response system that is anticipatory rather than reactive, and a safety culture that is owned collectively across the Indian maritime ecosystem.

NAUTICAL ADVISOR'S MESSAGE

CAPT. ABUL KALAM AZAD
NAUTICAL ADVISOR (I/C)
GOVERNMENT OF INDIA



I am pleased to present this report containing a comprehensive analysis of maritime incidents involving Indian-flagged vessels and Indian seafarers over the past year. This report not only documents occurrences but also serves as a critical tool for enhancing our maritime safety protocols and seafarer welfare initiatives.

The Directorate General of Shipping has prioritised the modernisation of our casualty response mechanisms. We have implemented advanced data analytics and real-time monitoring systems to ensure prompt and effective responses to maritime incidents. Our focus has been on integrating technology to facilitate swift decision-making and coordination among stakeholders.

Recognising the challenges faced by our seafarers, we have intensified efforts to improve their welfare and training. The introduction of the revamped exit examination system ensures uniform assessment standards across all maritime institutes in India, thereby enhancing the quality and credibility of maritime certification. This initiative reflects our commitment to equipping seafarers with the necessary skills and knowledge to navigate the complexities of modern maritime operations.

Our progress in maritime safety and seafarer welfare is the result of collaborative efforts among various stakeholders, including government agencies, maritime training institutes, and industry partners. Moving forward, we aim to further strengthen these partnerships and continue to implement measures that enhance safety, security, and well-being within the maritime sector.

I extend my gratitude to all who have contributed to this report and to the ongoing efforts to improve maritime safety. Together, we can ensure a safer and more secure environment for our seafarers.

CASUALTY INVESTIGATION BRANCH

**CAPT. HARINDER SINGH
NAUTICAL SURVEYOR & DEPUTY
DIRECTOR GENERAL (TECH.)
DIRECTORATE GENERAL OF
SHIPPING**



It is with a profound sense of duty that I present the Maritime Safety Investigation Annual Report. This document encapsulates our relentless efforts in investigating maritime incidents and enhancing the safety framework for Indian seafarers.

Over the past year, the Directorate General of Shipping has undertaken significant strides in modernizing our casualty investigation processes. By integrating advanced data analytics and real-time monitoring systems, we have improved our ability to respond promptly and effectively to maritime incidents. This technological advancement ensures that our investigations are thorough, timely, and contribute meaningfully to preventing future occurrences.

A critical aspect of our mandate involves ensuring the physical and mental well-being of our seafarers. Recognizing the unique challenges faced by those at sea, we have implemented measures to support their health and safety. Furthermore, our collaboration with international organizations has been pivotal in aligning our safety standards with global best practices. These partnerships have facilitated knowledge exchange and capacity building, enhancing our overall maritime safety ecosystem.

The DGComm Centre has also played a crucial role in emergency response coordination, particularly in regions experiencing increased maritime security threats. Our team of dedicated personnel have ensured that Indian seafarers receive timely assistance during crises, reinforcing our commitment to their safety and security.

This report is not merely a record of incidents but a testament to our unwavering commitment to maritime safety and the well-being of our seafarers. I extend my gratitude to all stakeholders who have contributed to these efforts and look forward to continued collaboration in our shared mission.

Executive summary

The global maritime industry, responsible for transporting over 80% of international trade by volume, is built upon the resilience, competence, and well-being of its seafarers. With more than 1.6 million seafarers operating across complex and high-risk environments, ensuring their safety is not just a regulatory obligation but a foundational pillar of sustainable shipping. For India—a nation with one of the largest and fastest-growing seafaring communities—the stakes are particularly high.

In recent years, maritime safety has rightfully emerged as a key priority in both national and international policy circles. Yet, the broader picture of marine incidents often remains obscured beneath the surface. While statistics on total vessel losses are commonly available, they represent only a fraction of the operational and human incidents that occur at sea. Many significant events do not result in total loss, but carry immense implications for safety, performance, and environmental integrity.

This report, prepared by the Directorate General of Shipping, presents a comprehensive annual account of such incidents, collated through the Mercantile Maritime Domain Awareness Centre (MMDAC) and its critical sub-entities: the Directorate General Communication Centre (DGComm Centre) and the Long Range Identification and Tracking (LRIT) National Data Centre.

Executive summary

The DGComm Centre functions as India's national platform for the reporting, analysis, and escalation of maritime casualties involving Indian seafarers and ships across the globe, as well as foreign vessels operating within Indian waters.

By systematically documenting both marine casualties and non-operational incidents, the report enables stakeholders to draw informed insights on risk patterns, procedural gaps, and crew vulnerabilities. Special attention is given to junior seafarers, who are often disproportionately affected due to limited experience or inadequate preparedness.

Importantly, this report goes beyond data collection. It reinforces the Directorate's commitment to maritime safety by serving as a tool for introspection, a basis for policy refinement, and a prompt for better training and regulatory oversight. With contributions from Indian Navy, Indian Coast Guard, port authorities, Indian missions, and shipping companies, this report is part of a larger effort to foster a safety-first culture in Indian shipping.

In maritime operations, where consequences are immediate and severe, comprehensive incident records are essential to prevention and preparedness.

Casualty Insight - At a Glance

2024-Insight

TOTAL NO OF INCIDENT

186

MARINE CASUALTY

78

NON-OPERATIONAL
INCIDENT

108

2023-Insight

TOTAL NO OF INCIDENT

153

MARINE CASUALTY

74

NON-OPERATIONAL
INCIDENT

79

↑ 21.6% escalation in reported casualties was noted in 2024 over 2023, increasing from 153 to 186

Key Highlights of Marine Casualties:

- An upward trend was observed in total collision incidents, rising from 5 in 2023 to 10 in 2024.
- Fire and explosion cases declined by over 50%, from 13 in 2023 to 6 in 2024. ▼
- Indian-flagged vessels were involved in just 1 fire/explosion case ▼, down from 7 in 2023.
- Occupational casualties remained the highest among marine incidents, though slightly decreased from 50 in 2023 to 47 in 2024.
- Only 4 of the 47 occupational incidents involved Indian-flagged vessels, accounting for just 8.5% of the total.
- Bulk carriers, Container Vessel and Oil tankers were the most frequently involved in marine casualties.
- No major pollution incidents were reported during the year, despite an overall rise in casualties.
- Loss of anchor/propeller cases ▲ emerged in 2024 with 2 incidents — none were reported in 2023.
- Indian-flagged vessel involvement in both fire/explosion and occupational cases showed a downward trend. ▼



Indian-flagged vessels continued to represent a minor share in total marine casualties, showing relative operational control.

Casualty Insight - At A Glance

Compared to 2023, non-operational incidents in 2024 rose by 36.7%, with noticeable increases in desertion and missing crew cases contributing to the overall shift.



Key Highlights of Non-Operational Incidents:

- Total non-operational incidents in 2024 rose by 36.7%, increasing from 79 in 2023 to 108.
- Desertion cases showed a sharp increase ▲ of 76.9%, rising from 13 to 23.
- Missing or man overboard cases also recorded a ▲ 42.9% increase, from 14 cases in 2023 to 20 in 2024.
- Sickness-related fatalities onboard remained largely the same, with 25 cases in 2024 compared to 24 in 2023.
- Indian-flagged vessels were associated with only 9.3% of all non-operational incidents in 2024, indicating good performance.
- The number of Indian-flagged non-operational cases rose ▲ from 7 in 2023 to 10 in 2024, though the share remained proportionally low.
- The year 2024 marked zero suicide incidents on Indian-flagged vessels, reflecting positively on onboard conditions and oversight.
- The total number of fatalities resulting from non-operational incidents increased from 55 in 2023 to 61 in 2024.

60%

of non-operational incidents in 2024 were linked to crew aged 20–40, marking the highest representation across all age groups.

0_{nos}

cases of desertion or suicide were reported on Indian-flagged vessels in 2024, reflecting a steady crew environment with no such incidents recorded.

Table of Contents

| | |
|---------------------|----|
| Introduction | 12 |
|---------------------|----|

| | |
|-------------------------|----|
| Analysis of Data | 22 |
|-------------------------|----|

- Casualty Analysis-Overview 26
- Vessel Analysis 28
- Flag Analysis 28
- Territory Analysis 31

| | |
|------------------------|----|
| Marine casualty | 32 |
|------------------------|----|

- Incident Analysis-2024 33
- Shipboard Incident Classification - Marine Casualty 39
- Vessel Analysis Marine Casualty 40
- Flag Administration- MarineCasualty Analysis 41

| | |
|----------------------------------|----|
| Non- Operational Incident | 42 |
|----------------------------------|----|

- Non-Operational Incident- Analysis 43
- Shipboard Incident Classification-Non-Operational Incident 50
- Vessel Analysis – Non-Operational Incident 51
- Flag Administration- Non-Operational Incident Analysis 52

Table of Contents

| | |
|---|----|
| Fishing Vessel Incidents On Indian Coast | 53 |
|---|----|

| | |
|--------------------------|----|
| Notable incidents | 56 |
|--------------------------|----|

- MV Dali allision and the Collapse of the Francis
Scott Key Bridge, Baltimore57
- MAERSK FRANKFURT - Fire On Board 59
- Sinking Of MV ITT PUMA62

| | |
|-----------------------|----|
| ETV Deployment | 63 |
|-----------------------|----|

| | |
|---|----|
| Medevac Analysis - Indian Waters | 65 |
|---|----|

List of figures

| | |
|--|----|
| Total Incidents Comparision between 2023 and 2024 - Marine Casualty | 24 |
| Total Incidents Comparision between 2023 and 2024 - Non Operational Incident | 25 |
| Fatality Rate(2024)-Marine Casualty | 26 |
| Injury Rate in (2024)-Marine Casualty | 26 |
| Fatality Rate (2024)- Non-Operational Incident | 27 |
| Injury Rate in (2024)- Non-Operational Incident | 27 |
| 2024 Marine & Non operational Incidents by vessel type | 28 |
| Indian Flag performance analysis | 29 |
| Classification of Shipboard incident - Marine Casualty | 39 |
| Vessels Analysis - Marine Casualty | 40 |
| Month-wise Vessels Analysis - Marine Casualty | 40 |
| Flags with Most Reported Incidents - Marine Casualty | 41 |
| Month-wise Analysis of Non-operational incident | 43 |
| Month-wise analysis in desertion | 44 |
| Department - Analysis (in %) | 44 |
| Total number of incident in sickness analysis | 46 |
| Classification of Shipboard incident - Non-Operational Incident | 50 |
| Vessels analysis - Non-Operational Incident | 51 |
| Month-wise Vessels analysis - Non-Operational Incident | 51 |
| Flags with Most Reported Incidents - Non-Operational Incident | 52 |
| Region-wise distribution | 67 |
| Evacuation Incidents Across Vessel Types | 67 |

List of Tables

| | |
|---|----|
| Total Incidents, Deaths, and Injuries in 2023 and 2024 - Marine Casualty | 24 |
| Total Incidents, Deaths, and Injuries in 2023 and 2024 - Non-Operational Incident | 25 |
| Marine Casualties of 2024 | 26 |
| Non-Operation Incidents of 2024 | 27 |
| Incidents Reported on Indian Flag - Comparison of 2023 & 2024 | 29 |
| Incidents Reported on Indian Flag- Marine Casualty | 30 |
| Incidents Reported on Indian Flag - Non-Operational Incident | 30 |
| Flag Registry Wise Casualties 2024 - Marine Casualty | 41 |
| Flag Registry Wise Casualties 2024 - Non-Operational Incident | 52 |



01

Introduction

The Directorate General of Shipping, Mumbai, hereby presents the Annual Report for Marine Safety Investigation. This report presents an analysis of marine casualties and seafarer-related incidents reported to the Directorate over the year 2024. It covers serious events involving Indian-flagged vessels, Indian seafarers serving globally, and foreign vessels operating in Indian waters. Particular focus is given to collisions, groundings, fires, and other high-risk incidents that directly impact vessel safety and crew welfare.

The report also examines patterns in non-operational incidents, such as onboard injuries, medical evacuations, and seafarer welfare concerns. Through this data, the Directorate aims to support targeted safety improvements, strengthen accountability, and reduce preventable risks within India's maritime sector.

a. Security:

In alignment with the rigorous requirements of the International Ship and Port Facility Security (ISPS) Code, the DG Communication Centre conducts regular testing of Ship Security Alert System (SSAS) equipment to ensure operational readiness. The Centre plays a central role in coordinating SSAS drills onboard vessels, reinforcing preparedness for potential maritime security threats. Serving as the primary node for receiving and processing critical alerts, the Centre responds to incidents such as hijackings, piracy, armed robbery or theft, terrorism, and the presence of stowaways or refugees on both Indian and foreign-flagged ships crewed by Indian nationals. Strict adherence to Standard Operating Procedures (SOPs) enables timely and effective dissemination of information, in accordance with both international and national protocols.

b. Safety:

In the sphere of maritime safety, the DG Communication Centre adopts a proactive approach to risk mitigation and emergency preparedness. By relaying real-time cyclone warnings and weather updates received from the Indian Meteorological Department (IMD), the Centre plays a vital role in protecting vessels, ports, and coastal communities. Comprehensive documentation of incidents—including casualties, piracy, accidents, and fatalities involving Indian-flagged ships and vessels crewed by Indian nationals—forms a critical database for trend analysis and preventive strategies. Additionally, the Centre coordinates the deployment of Emergency Towing Vessels (ETVs) along India's East and West coasts, in accordance with directives from the Directorate General of Shipping (DGS), reinforcing its commitment to maritime safety across the nation's waters.

c. Marine Casualty:

The DG Communication Centre plays a critical role in the management of marine casualties. Upon receiving requests from relevant agencies and authorities, the Directorate General of Shipping (DGS) issues instructions for the deployment of Emergency Towing Vessels (ETVs) through the DG Comm Centre. In addition, the Centre disseminates essential casualty-related information to vessels operating in the affected areas via Maritime Rescue Coordination Centres (MRCCs) or the Indian Coast Guard (ICG). This coordinated approach reflects our commitment to regulatory compliance and the timely exchange of information during maritime emergencies.

As we look back on the achievements of the past year, the DG Communication Centre reaffirms its steadfast commitment to maritime excellence. Its unwavering focus on security, safety, and effective response to marine casualties continues to strengthen the resilience of India's maritime sector. Moving forward, the Centre remains dedicated to continuous improvement and innovation, ensuring that the waters under our purview remain secure, safeguarded, and prepared to meet emerging challenges.

d. Security & Safety Issues:

There has been an increase in incidents of piracy and armed robberies in the last quarter of the year 2023. The incident serves as critical case studies in understanding the evolving nature of maritime security threats. The calculated tactics employed by armed perpetrators highlights the ongoing challenges faced by vessels in high-risk areas. These incidents emphasise the imperative for continuous vigilance, strengthened security protocols, and collaborative efforts among international maritime stakeholders to ensure the safety and security of vessels navigating through these critical maritime regions.

The stellar role of DG COMM in various recent incidents like 'Marlin Luanda', 'Maersk Frankfurt', 'MV Dali' has been widely acknowledged by the Indian agencies and various stakeholders.

Objective

The Mercantile Marine Domain Awareness Centre (MMDAC) integrates critical systems such as the DGComm Centre and the Long-Range Identification and Tracking (LRIT) system to strengthen India's maritime safety, security, and situational awareness framework. This report outlines the following core objectives:

1. Enhance Maritime Domain Awareness

To enable continuous monitoring of Indian-flagged vessels and Indian seafarers across global waters through integrated communication and tracking systems.

2. Ensure Timely Response to Casualties

To coordinate real-time response to maritime distress incidents—technical, medical, or security-related—through the 24x7 DGComm Centre.

3. Utilize Data for Risk Assessment

To analyse casualty trends and near-miss reports, informing regulatory decisions, safety circulars, and proactive risk mitigation strategies.

4. Strengthen Inter-Agency Coordination

To act as a central link between the Directorate General of Shipping, the Indian Navy, the Indian Coast Guard, port authorities, and Indian embassies in emergencies.

5. Safeguard Seafarer Welfare

To prioritize crew safety—especially for ratings and trainees—through timely intervention, enhanced safety communication, and systemic improvements.

6. Fulfil International Compliance Obligations

To generate reliable, verifiable incident data in line with India's obligations under IMO instruments and related maritime conventions.

Through these objectives, MMDAC supports the Government of India's vision of a secure, transparent, and accountable maritime ecosystem driven by real-time intelligence and coordinated response.

Scope of the Report

This MMDAC DGComm Centre Annual Report presents a consolidated overview of distress incidents, maritime casualties, and safety-related communications recorded and coordinated through systems operating under the Mercantile Maritime Domain Awareness Centre (MMDAC), specifically the DGComm Centre and the Long-Range Identification and Tracking (LRIT) system.

The scope of this report includes:

1. Casualty and Incident Reporting

The report covers marine casualties involving:

- o Indian-flagged merchant vessels,
- o Indian seafarers serving on foreign-flagged ships,
- o Vessels operating within India's Search and Rescue Regions (SRRs),
- o Incidents notified by MRCCs, port authorities, and Indian Missions abroad.

It includes fatal and non-fatal incidents, groundings, collisions, fires, foundering, man overboard cases, machinery failures, and other serious occurrences.

2. Medical Evacuations and Crew Emergencies

Data on MEDEVAC (Medical Evacuation) operations and urgent crew support cases are documented, focusing on response timelines, coordination efforts.

3. Vulnerability Analysis by Rank and Vessel Type

The report identifies trends in incident exposure, particularly the disproportionate impact on junior ranks (ratings and trainees) and high-risk vessel types (fishing vessels, aging cargo ships), thereby supporting targeted risk mitigation.

4. Inter-Agency and International Coordination

The report documents coordinated responses involving the Directorate General of Shipping, the Indian Navy, the Indian Coast Guard, DGComm operators, shipping companies, and foreign missions during complex emergency situations.

Through this scope, the report aims to present an operationally focused, evidence-based account of maritime safety and casualty response involving Indian interests, thereby contributing to policy refinement, system improvements, and greater accountability in maritime governance.

The report aims to identify, classify, and analyze reportable marine casualties and very serious marine casualties, as per the definitions laid down in the IMO Casualty Investigation Code (Resolution MSC.255(84)), adopted in 2008 under SOLAS Regulation XI-1/6.

Types of Incidents Covered

In line with international standards, incidents are bifurcated into the following:

1. Marine Casualty

As per the IMO Casualty Investigation Code, a marine casualty means an event that has resulted in:

- The death of, or serious injury to, a person,
- The loss of a person from a ship,
- The loss, presumed loss or abandonment of a ship,
- Material damage to a ship,
- The stranding or disabling of a ship, or its involvement in a collision,
- Material damage to marine infrastructure or the environment.

2. Very Serious Marine Casualty

A very serious marine casualty is a marine casualty involving:

- Total loss of the ship,
- Loss of life, or
- Severe damage to the environment.

These classifications help prioritize investigation, response, and preventive action based on severity and impact.

3. Non-Operational Incidents / Other Casualties

In addition to marine casualties defined under the IMO Casualty Investigation Code, this report also accounts for non-operational and welfare-related incidents affecting Indian seafarers and crew members. These events may occur ashore or onboard and are not necessarily caused by navigational or operational failures, but they require notification, intervention, or recordkeeping under the Directorate General of Shipping's reporting protocols.

Types of Incidents Covered

MARINE CASUALTIES AND VERY SERIOUS MARINE CASUALTIES

The report identifies and analyses the following types of incidents, which fall within the scope of marine and very serious marine casualties:

Collision

An impact involving two or more ships, or a ship and a fixed or floating object. Collisions are often attributable to navigational errors, visibility issues, or mechanical failure and can result in hull breaches, crew injuries, or fatalities.

Fire and Explosion

Uncontrolled ignition onboard, typically involving cargo, engine rooms, fuel systems, or galley areas. Explosions may result from pressurized systems or volatile cargo. Such incidents pose extreme danger to crew safety and vessel integrity.

Man Overboard

Incidents where a crew member or passenger unintentionally falls into the sea during operations onboard the vessel. These cases demand immediate search and rescue operations coordinated by MRCC's and are often linked to lapses in safety measures or harsh sea conditions.

Sinking (Foundering)

Loss of vessel buoyancy due to flooding, structural failure, or extreme weather, resulting in submersion. Often qualifies as a very serious marine casualty, especially when it involves total vessel loss or loss of life.

Grounding (Stranding)

Inadvertent contact between a vessel's hull and the seabed, reef, or submerged objects. Groundings may cause hull damage, oil spills, and navigation channel obstruction, and require immediate technical assessment.

Occupational incident

Covers injuries, fatalities, or safety breaches not caused by external marine factors—such as falls, equipment failure, confined space accidents, or electrical shock. These are frequently linked to non-compliance with shipboard safety protocols.

Flooding

Ingress of water into the vessel's compartments due to hull breach, pipe failure, or open hatches, potentially leading to capsizing or machinery damage. Often categorized as serious or very serious depending on extent and consequences.

Piracy and Armed Robbery

Attack on a vessel by armed individuals, often with criminal or political motives. Piracy poses severe risks to seafarer safety and national maritime security.

Loss of Anchor / Propeller

Mechanical failure or loss of critical equipment affecting vessel control or station-keeping ability. While not always causing immediate casualties, such incidents are operationally significant and may lead to further marine casualties.

Geographic and Jurisdictional Coverage

The report covers:

- Incidents involving Indian-flagged vessels in international and Indian waters,
- Foreign flagged vessels in Indian waters,
- Indian seafarers serving aboard foreign-flagged ships,
- Casualties within Indian Search and Rescue Regions (SRRs),

By structuring casualty data in accordance with international standards and national reporting responsibilities, this report supports both operational response and policy-level interventions aimed at enhancing India's maritime safety architecture.

Types of Incidents Covered

■ Non-Operational Incidents

These incidents are often reported via the DGComm Centre or notified by employers, MRCCs, Indian missions abroad, port authorities, or families. While not classified as “marine casualties” under IMO definitions, they are crucial for understanding crew vulnerabilities, medical needs, legal issues, and systemic risks.

The report identifies and analyses the following types of incidents, which fall within the scope of Non-Operational / Other Casualties:

Arrested Ashore

Refers to seafarers detained by law enforcement authorities in foreign or domestic ports, typically due to visa violations, disputes, stowaway allegations, or criminal charges. These cases involve legal and consular intervention.

Death Ashore

A death of a seafarer occurring while off-duty in a foreign or home port, not directly related to shipboard operations. These may arise from natural causes, accidents, or medical complications.

Desertion

When a seafarer unlawfully abandons the ship without permission or fails to return before sailing. Considered a breach of contract, desertion has legal and administrative implications for the shipowner and crew management.

Incident Ashore

Injury, illness, or legal conflict involving a seafarer occurring ashore but while under contractual engagement. This includes traffic accidents, altercations, or non-duty related injuries.

Non - Occupational incident (MEDEVAC)

Refers to a medical emergency onboard necessitating Medical Evacuation (MEDEVAC) by air or sea. Includes serious injuries or trauma arising out of non-operational functioning, needing urgent external medical care.

Injury

Non-fatal physical harm sustained onboard during contractual service. Severity may vary from minor to debilitating, requiring repatriation or hospitalization.

Missing / MOB

Cases where a seafarer is unaccounted for—either lost overboard (Man Overboard) or disappeared while onboard, without trace. These cases require urgent investigation and often involve search and rescue operations and coordination with port authorities or embassies.

Sickness & Death Onboard

Illness leading to death while the seafarer is onboard. Typically, due to undiagnosed conditions, inadequate access to care, or pre-existing health issues. Considered a critical welfare and insurance matter.

Sickness Onboard

Non-fatal medical conditions developed during voyage requiring monitoring, onboard treatment, or shore medical intervention. Includes infections, chronic conditions, fatigue or illness.

Sickness Onboard & Death Ashore

Refers to cases where a seafarer falls ill onboard and later dies ashore after being disembarked or hospitalized. These incidents may raise questions of inadequate medical examinations, delayed care, or underlying health concerns.

Sickness Onboard (MEDEVAC)

Serious illness onboard requiring MEDEVAC, where the seafarer is evacuated for emergency medical attention. These operations are resource-intensive and coordinated through MRCCs, medical evacuation and health authorities.

Suicide

Confirmed or suspected self-inflicted death onboard during the course of duty. Requires sensitive handling, psychological review, and possibly criminal or judicial inquiry. Suicide also reflects deeper issues of mental health and underlying support onboard.

Wilful Default

Acts of deliberate misconduct or negligence by seafarers, such as violation of instructions, unauthorized leave, or wilful damage. These are administrative violations impacting crew discipline and liability.

Purpose of Inclusion

By including non-operational and welfare-linked casualties, the report ensures a comprehensive view of seafarer well-being and risks, supporting the development of:

- Targeted mental health support,
- Improved medical protocols onboard,
- Legal and consular frameworks for conflict resolution,
- Safety and training programs focused on junior and vulnerable crew.

These definitions aid in categorizing and analysing incidents holistically beyond the operational envelope of the vessel, contributing to better crew management and maritime governance.



02

Analysis of Data

Incident report -2024

In 2024, a total of 186 incidents were reported across marine and other casualty categories



- The incidents resulted in 83 deaths and 61 injuries, reflecting significant human impact.
- The majority number of deaths were linked to other casualties, highlighting the need for crew welfare focus.
- Timely reporting and preventive actions remain crucial to minimize risks and safeguard lives.
- Continuous monitoring and corrective measures are essential to strengthen maritime safety standards.

MARINE CASUALTY

A “Marine Casualty” refers to any event related to the operation of a ship that results in death, serious injury, or significant damage. It can involve the loss or abandonment of a vessel, structural failure, or major equipment malfunction. Common causes include collision, grounding, fire, explosion, capsizing, or flooding. Such incidents may also lead to environmental harm, such as oil spills or the release of hazardous materials. Marine casualties are governed by international maritime safety regulations and must be reported to the appropriate authorities. These incidents often prompt formal investigations to determine the root causes and implement measures to prevent future occurrences.



NON-OPERATIONAL INCIDENT/OTHER CASUALTY

“Non-operational incident” or “Other casualty” encompasses onboard incidents that, while not directly linked to the vessel’s navigational or operational failures, still pose risks to crew safety and shipboard continuity. These events typically involve personal injuries from slips, falls, equipment mishandling, or medical emergencies such as illness or sudden health deterioration. Though they may not affect the structural integrity of the vessel, such occurrences can disrupt operations and demand immediate attention. Ensuring crew preparedness through safety training, health protocols, and emergency response measures is essential. These incidents are formally reported and assessed to maintain compliance with maritime safety standards and foster a proactive safety environment onboard.

01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS

TABLE 1: Total Incidents, Deaths, and Injuries in 2023 and 2024 - Marine Casualty

| Marine Casualty | 2023 | | | 2024 | | |
|----------------------------|----------------|-------|--------|----------------|-------|--------|
| Incident Type | Total Incident | Death | Injury | Total Incident | Death | Injury |
| Collision | 5 | 0 | 0 | 10 | 3 | 0 |
| Fire and Explosion | 13 | 5 | 4 | 6 | 7 | 2 |
| Man Overboard | 1 | 1 | 0 | 2 | 1 | 1 |
| Sinking | 0 | 0 | 0 | 3 | 4 | 0 |
| Grounding | 2 | 0 | 0 | 3 | 0 | 0 |
| Occupational incident | 50 | 8 | 47 | 47 | 7 | 43 |
| Flooding | 2 | 0 | 0 | 3 | 0 | 0 |
| Hijacking and Piracy | 1 | 0 | 1 | 2 | 0 | 0 |
| Loss of anchor / propeller | 0 | 0 | 0 | 2 | 0 | 0 |
| Total | 74 | 14 | 52 | 78 | 22 | 46 |

* The shaded boxes above indicates higher number of deaths and injuries respectively for a comparative study of incidents in the year 2023 and 2024

FIG 1: Total Incidents Comparision between 2023 and 2024 Marine Casualty

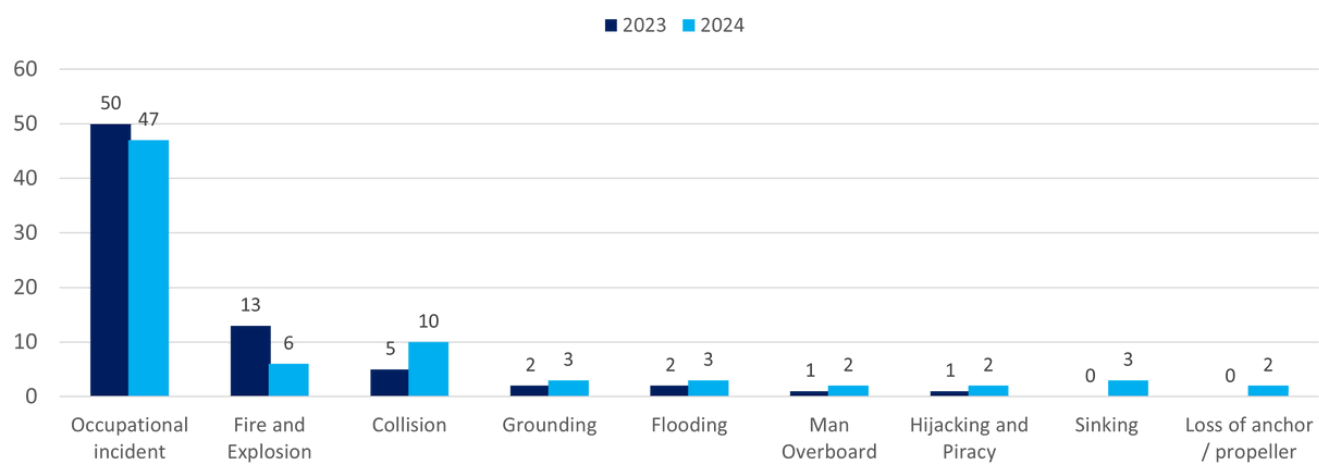
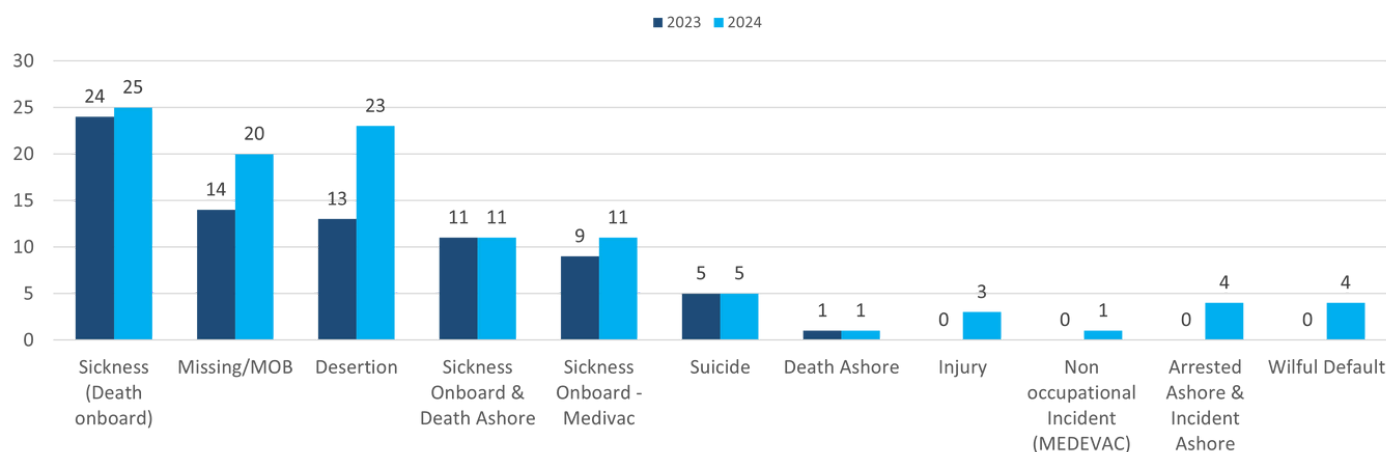


TABLE 2: Total Incidents, Deaths, and Injuries in 2023 and 2024 - Non-operational incident

| Non-Operational Incident | 2023 | | | 2024 | | |
|-------------------------------------|-----------------|-----------|----------|-----------------|-----------|-----------|
| Incident Type | Total Incidents | Death | Injury | Total Incidents | Death | Injury |
| Death Ashore | 1 | 1 | 0 | 1 | 1 | 0 |
| Desertion | 13 | 0 | 0 | 23 | 0 | 0 |
| Injury | 0 | 0 | 0 | 3 | 0 | 3 |
| Non Occupational Incident (MEDEVAC) | 2 | 0 | 2 | 1 | 0 | 3 |
| Missing/MOB | 14 | 14 | 0 | 20 | 20 | 0 |
| Sickness (Death onboard) | 24 | 24 | 0 | 25 | 25 | 0 |
| Sickness Onboard - Medevac | 9 | 0 | 0 | 11 | 0 | 0 |
| Sickness Onboard & Death Ashore | 11 | 11 | 0 | 11 | 11 | 0 |
| Suicide | 5 | 5 | 0 | 5 | 4 | 1 |
| Arrested Ashore & Incident Ashore | 0 | 0 | 0 | 4 | 0 | 3 |
| Wilful Default | 0 | 0 | 0 | 4 | 0 | 5 |
| Total | 79 | 55 | 2 | 108 | 61 | 15 |

* The shaded boxes above indicates higher number of deaths and injuries respectively for a comparative study of incidents in the year 2023 and 2024

FIG 2: Total Incidents Comparison between 2023 and 2024 - Non-operational incident

Casualty Analysis Overview

The 2024 incident analysis reveals a higher fatality burden from health-related and non-operational causes. Crew welfare challenges, including sickness and mental health issues, outweighed marine accidents. While marine casualties like collisions and fires remain critical, systemic support gaps are more evident. Prioritizing preventive health measures and resilience programs is key to strengthening maritime safety.

Other than fatalities, injury data highlights the discrepancy between operational and non-operational risks. The majority of injuries arose from marine casualties—particularly onboard incidents—highlighting the inherent physical dangers of shipboard operations. While fewer in number, injuries reported under non-operational categories also persist, pointing to broader health and safety concerns that extend beyond equipment or structural failures. A truly effective safety strategy must therefore address both the physical demands and the psychological challenges faced by seafarers across all types of incidents.

Marine Casualty

TABLE 3: MARINE CASUALTIES OF 2024

| Incident Type | Death | Injury |
|----------------------------|-------|--------|
| Collision | 3 | 0 |
| Fire and Explosion | 7 | 2 |
| Man Overboard | 1 | 1 |
| Sinking | 4 | 0 |
| Grounding | 0 | 0 |
| Occupational Incident | 7 | 43 |
| Flooding | 0 | 0 |
| Hijacking and Piracy | 0 | 0 |
| Loss of anchor / propeller | 0 | 0 |
| Total | 22 | 46 |

FIG 3: Fatality Rate (2024)- Marine Casualty

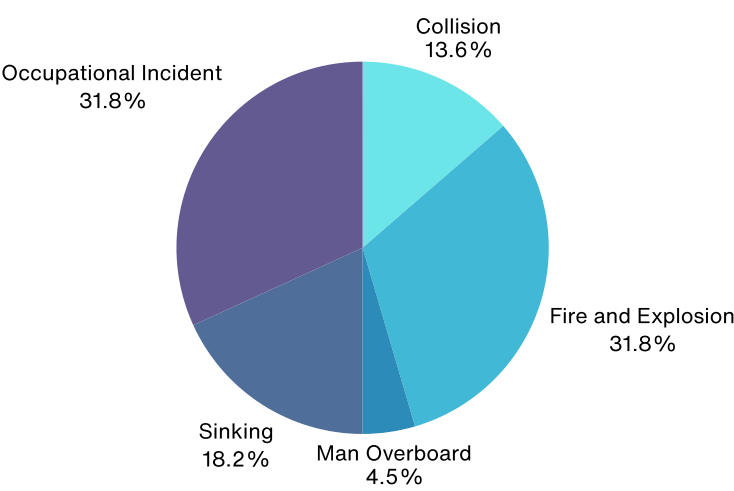
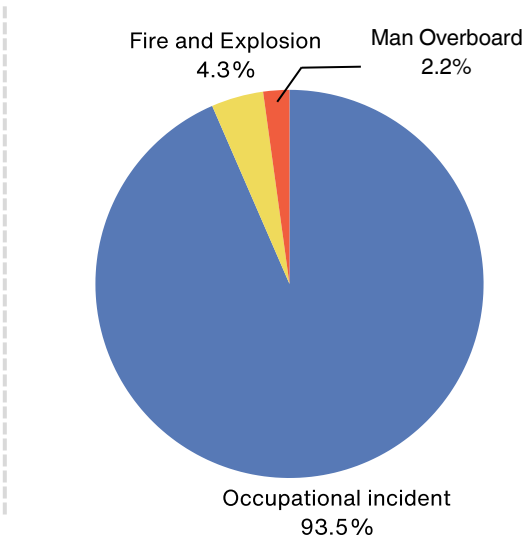


FIG 4: Injury Rate in (2024) - Marine Casualty



Non Operational Incident

TABLE 4: NON OPERATIONAL INCIDENTS OF 2024

| Incident Type | Death | Injury |
|-------------------------------------|-----------|-----------|
| Death Ashore | 1 | 0 |
| Desertion | 0 | 0 |
| Incident Ashore | 0 | 3 |
| Non Occupational Incident (MEDEVAC) | 0 | 3 |
| Injury | 0 | 3 |
| Missing/MOB | 20 | 0 |
| Sickness (Death onboard) | 25 | 0 |
| Sickness onboard | 0 | 0 |
| Sickness onboard & Death ashore | 11 | 0 |
| Sickness onboard (MEDEVAC) | 0 | 0 |
| Suicide | 4 | 1 |
| Wilful Default | 0 | 5 |
| Total | 61 | 15 |

FIG 5: Fatality Rate (2024)- Non operational incident

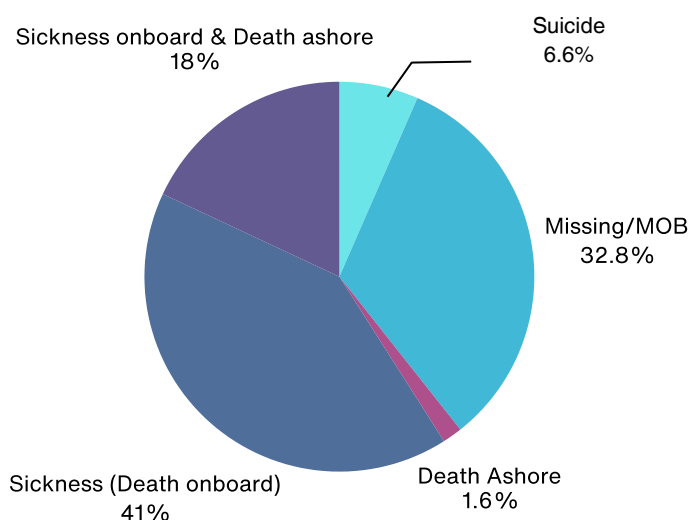
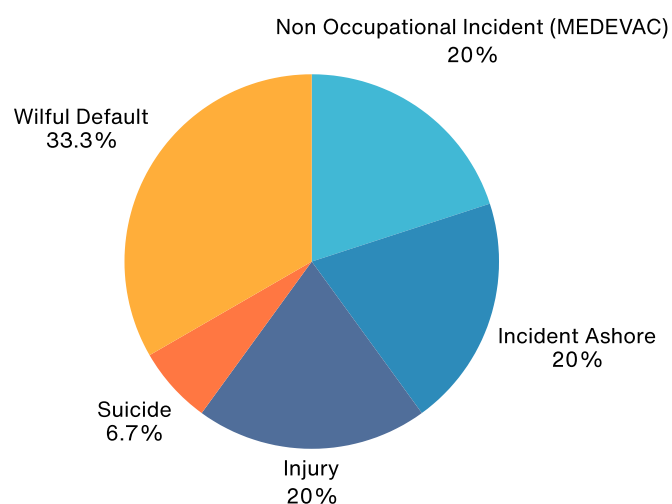


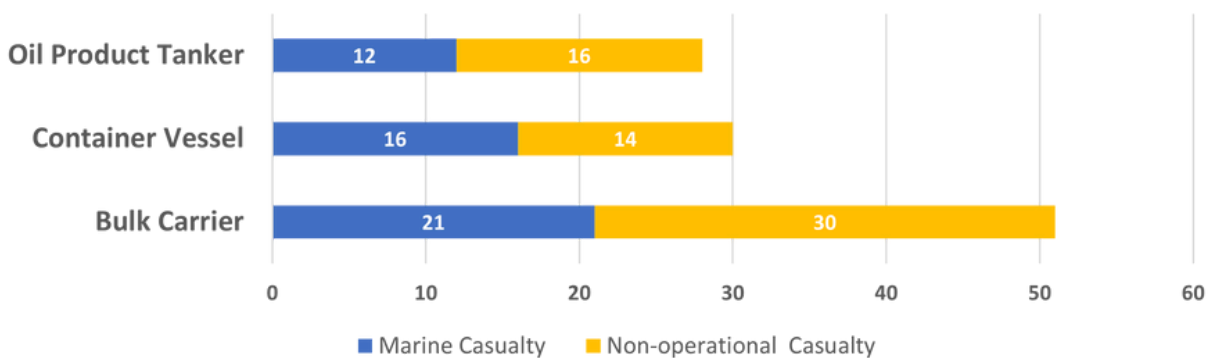
FIG 6: Injury Rate in (2024)- Non operational incident



Vessel Analysis

Bulk carriers, container ships, and oil/product tankers were the most frequently involved in marine casualties in 2024, reflecting their high operational demand and complexity. These vessel types dominate global trade routes and often operate under tight schedules, increasing their exposure to navigational and mechanical risks. Bulk carriers, in particular, are susceptible to structural stress due to heavy cargo loads, while container ships face challenges related to port congestion and equipment handling. Oil and product tankers carry additional risk due to the hazardous nature of their cargo, requiring strict adherence to safety protocols. The casualty patterns underscore the need for enhanced risk management strategies across these high-traffic vessel categories.

FIG 7: 2024 Marine & Non operational Incidents by vessel type



Flag Analysis*

In 2024, a considerable share of incidents was reported across Marshall Islands, Panama, Liberia, and Singapore-flagged vessels, with presence observed in both operational and non-operational categories.

While Marshall Islands reflected a slightly higher concentration in specific crew-related cases, Panama showed a balanced distribution across incident types — consistent with the large number of Indian seafarers employed on these globally subscribed registries.



*DISCLAIMER: THE ANALYSIS OF FOREIGN-FLAGGED VESSEL PERFORMANCE IS BASED SOLELY ON INCIDENTS THAT OCCURRED WITHIN INDIAN WATERS AND THOSE INVOLVING INDIAN SEAFARERS ONBOARD FOREIGN VESSELS.

01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS



Indian Flag Performance overview

The data reflects a higher number of reported incidents involving Indian-flagged vessels, given the reporting scope includes Indian seafarers, Indian-flagged ships, and all vessels operating within Indian maritime zones. Notably, incidents under the Indian flag are more concentrated in the category of marine and very serious marine casualties, including collisions, fires and explosions, groundings, and flooding—highlighting the operational risks associated with active fleet deployment. In contrast, non-operational incidents reported on Indian-flagged vessels are relatively fewer and largely unrelated to seafarer misconduct or negligence. This trend suggests that Indian-flagged operations, while exposed to higher physical and navigational risks due to traffic density and operational range, maintain a consistent standard of crew conduct and procedural compliance.

The visibility of Indian flags in operational incident categories presents an opportunity for focused intervention. Continued investment in crew training, risk assessment practices, and real-time compliance monitoring will be essential in improving outcomes. Moreover, fostering a culture of proactive safety behaviour and routine onboard drills could significantly reduce preventable incidents, aligning Indian-flagged vessels with global performance standards.

TABLE 5: Incidents Reported on Indian Flag - Comparison of 2023 & 2024

| Year | Jan - Mar | Apr - Jun | Jul - Sep | Oct - Dec | Total |
|------|-----------|-----------|-----------|-----------|-------|
| 2023 | 4 | 9 | 4 | 6 | 23 |
| 2024 | 6 | 6 | 11 | 3 | 26 |

FIG 8: Indian Flag performance analysis

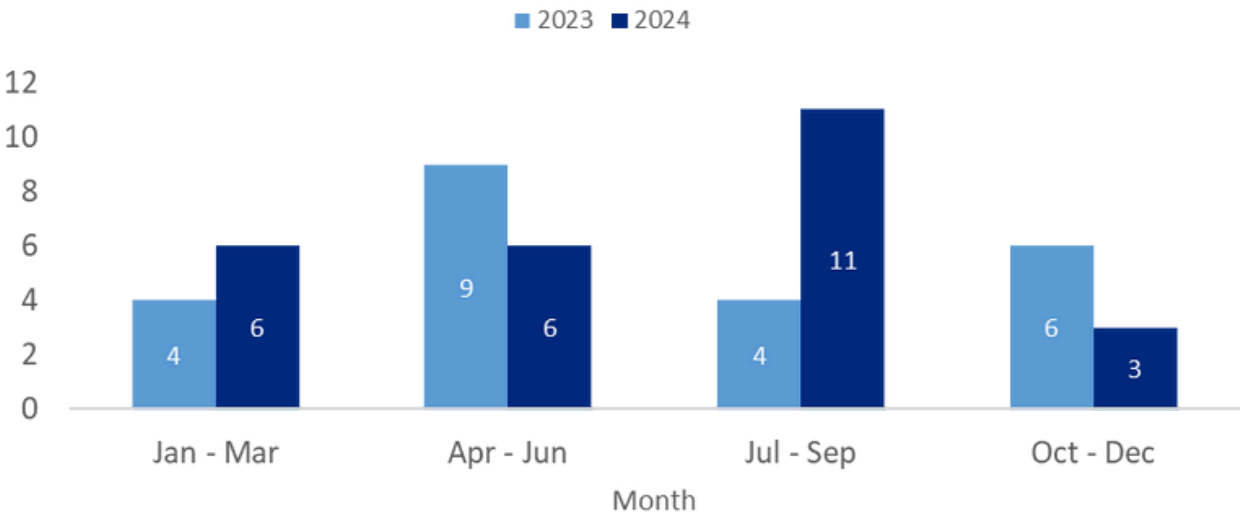


TABLE 6: Incidents Reported on Indian Flag - Marine Casualty.

| Incident Type | Total Number of Incident | |
|----------------------------|--------------------------|-----------|
| | 2023 | 2024 |
| Collision | 2 | 5 |
| Fire and Explosion | 7 | 1 |
| Man Overboard | 0 | 0 |
| Sinking | 0 | 1 |
| Grounding | 2 | 2 |
| Occupational incident | 3 | 4 |
| Flooding | 2 | 1 |
| Hijacking and Piracy | 0 | 0 |
| Loss of anchor / propeller | 0 | 2 |
| Total | 16 | 16 |

TABLE 7: Incidents Reported on Indian Flag - Non operational incident

| Incident Type | Total Number of Incident | |
|-------------------------------------|--------------------------|-----------|
| | 2023 | 2024 |
| Death Ashore | 1 | 1 |
| Desertion | 0 | 0 |
| Injury | 0 | 0 |
| Non Occupational Incident (MEDEVAC) | 1 | 0 |
| Missing/MOB | 1 | 5 |
| Sickness (Death onboard) | 0 | 1 |
| Sickness Onboard - Medevac | 4 | 0 |
| Sickness Onboard & Death Ashore | 0 | 3 |
| Suicide | 0 | 0 |
| Arrested Ashore & Incident Ashore | 0 | 0 |
| Wilful Default | 0 | 0 |
| Total | 7 | 10 |

Overview - Territory Analysis

DESCRIPTION

The territorial distribution of marine incidents between 2023 and 2024 reveals a notable shift in operational risk zones. Incidents occurring outside Indian waters (beyond 200 nautical miles) rose from 78% in 2023 to 82% in 2024, marking a 4 percentage point increase. This upward trend suggests growing exposure or reporting from international waters, where monitoring and emergency response capabilities may be comparatively limited. In contrast, Indian Territorial Waters (up to 12 nautical miles) saw a marginal decrease from 15% to 13%, and the Indian EEZ (12 to 200 nautical miles) declined from 7% to 5%. Overall, the data indicates a concentration of incidents in high-seas and foreign waters, highlighting the need for enhanced onboard preparedness, long-range emergency support, and international collaboration to mitigate risks in foreign operational areas.

INCIDENT-
INDIAN
TERRITORIAL
WATERS

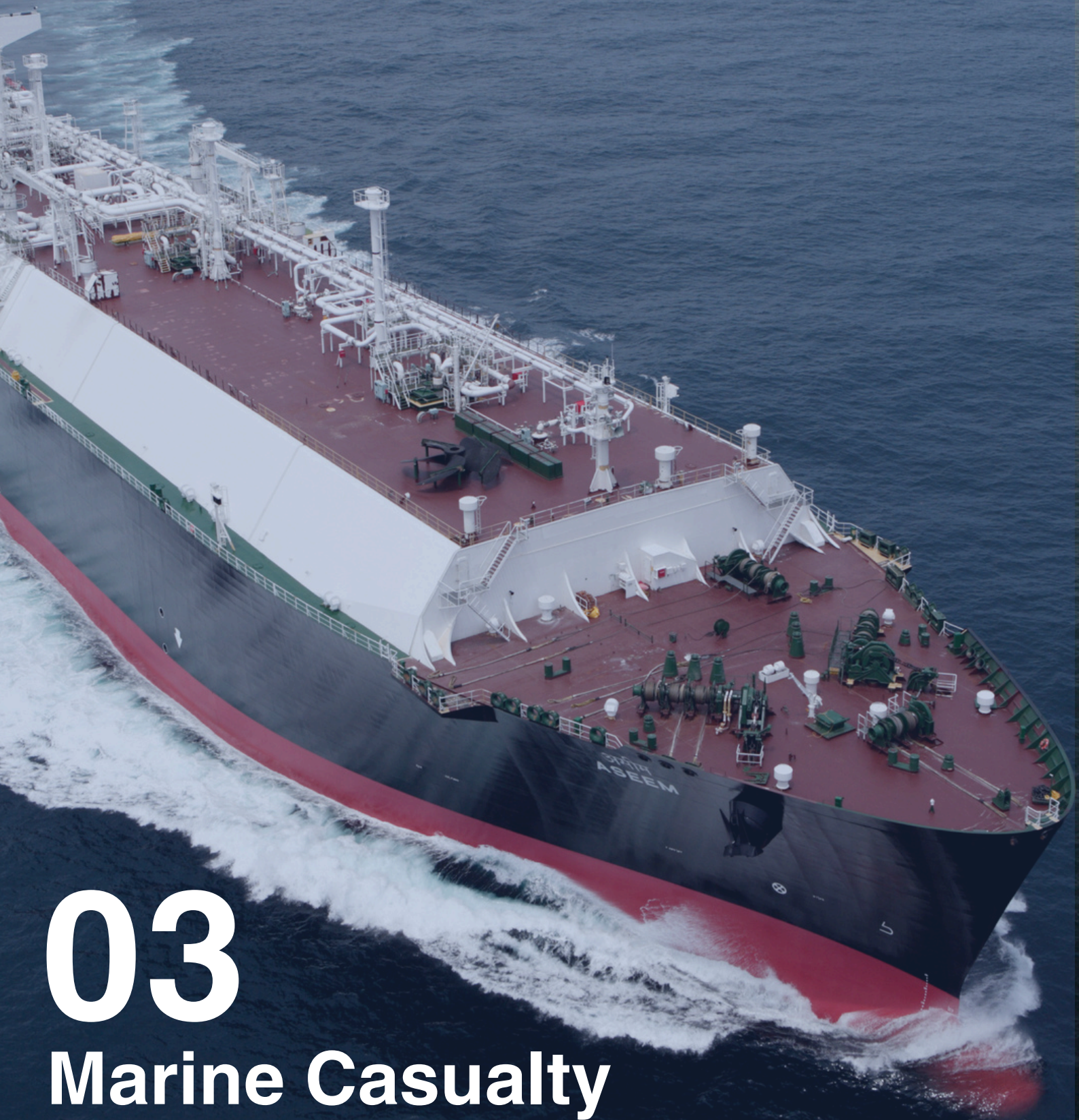
13%

INCIDENT-
INDIAN EEZ

5%

INCIDENT-
BEYOND
INDIAN EEZ

82%



03

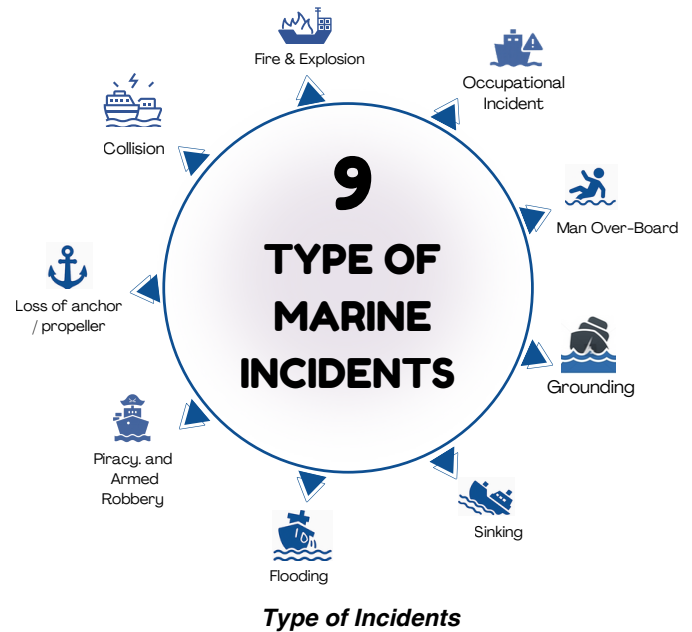
Marine Casualty

Incident Analysis

The analysis of marine casualties reveals a significant impact on human lives and vessel conditions due to various types of accidents and incidents. A total of 68 lives were directly affected as a result of these incidents, with the majority of fatalities and injuries occurring during operational activities onboard vessels.

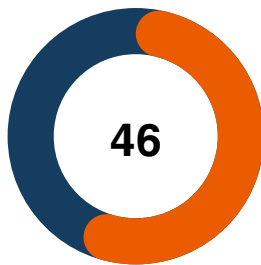
The year 2024 witnessed a total of 78 marine incidents, resulting in 22 deaths and 46 injuries. "Occupational incident" emerged as the most frequent and severe category, accounting for 47 incidents, 7 fatalities, and 43 injuries. Although limited to 6 cases, "Fire and Explosion" incidents also resulted in 7 deaths, highlighting their high fatality rate.

This trend highlights the importance of proactive risk assessment, effective onboard safety management systems, and regulatory oversight to reduce the frequency and severity of such incidents. The Directorate continues to emphasize the critical role of safety culture and accident prevention strategies across the Indian and international merchant marine sector.



In 2024 there are 78 casualty occurred across 9 categories of incidents

Human Casualty Insights



INJURY

The injury pattern indicates that routine shipboard operations demand greater focus on safety measures.



DEATH

Fatalities were reported in several major onboard and fire-related incidents.

Occupational Incident



Occupational incident was the most frequently reported category in 2024, with 47 cases across the year. These resulted in 7 fatalities and 43 injuries, making it the highest-impact category overall. They often result from everyday operations — whether involving maintenance, movement within the vessel, or equipment handling. These incidents were recorded in nearly every month, reflecting their persistent and routine nature. While less dramatic than other categories like fire or collision, onboard incidents tend to be the most preventable and yet the most common. The high number of injuries suggests that operational discipline, hazard recognition, and individual vigilance need reinforcement. Regular tasks should never be taken lightly, as they can still result in harm if proper steps are skipped or safety gear is not used. With such high frequency, it's essential to create a culture where even minor onboard hazards are taken seriously, reported promptly, and addressed consistently.



47 Number of Incident Reported

07 Total Death



43 Total Injury

Proactive prevention strategies, such as regular crew drills, equipment audits, and mental wellness programs, must be prioritized.

KEY SUGGESTIONS

Every crew member should be consistently reminded that safety is essential—not only during high-risk operations but also in the most routine daily tasks. Incidents can happen in familiar settings when caution is overlooked. The proper and consistent use of personal protective equipment (PPE)—including gloves, helmets, safety boots, and reflective clothing—must be enforced across all departments. Any visible hazard, such as slippery decks, damaged handrails, exposed wiring, or malfunctioning equipment, should be clearly marked and repaired as quickly as possible to prevent injury. Regular toolbox meetings should be held before starting shifts or specific tasks to discuss the work ahead and identify potential risks. These meetings serve as a simple but effective tool for promoting safety awareness and setting a culture of accountability.

01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

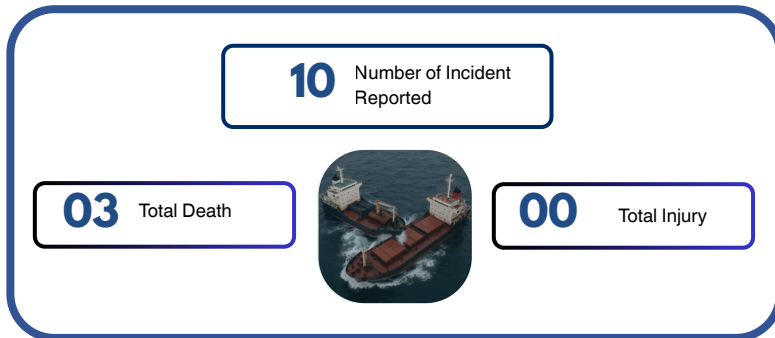
05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS

Collision

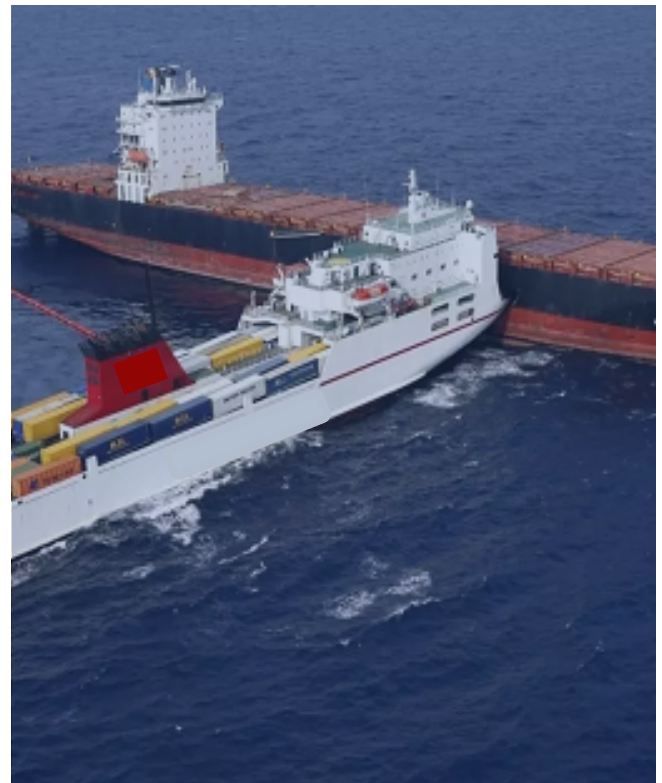


Bridge coordination, situational awareness training, and structured post-collision reviews must be consistently enforced.

KEY SUGGESTIONS

To reduce the chance of collisions, all crew on watch should stay alert and focused, especially when the ship is in busy or coastal areas. After any collision, even a small one, it's important to check on the crew's health and well-being. Any incident or close call should be clearly reported so the team can learn from it. Regular safety meetings and simple practice drills can help everyone know what to do in such situations. Officers should avoid distractions on the bridge and make sure they are well rested during while performing navigational duties. Sharing lessons from past incidents with other vessels can also help prevent similar situations. Bridge team management, timely decisions, and clear communication are key to safety.

In 2024, a total of 10 maritime collision incidents were reported, resulting in 3 fatalities and no recorded injuries. All fatalities occurred in a single incident during the month of May, while the remaining nine cases did not involve any loss of life or injury. The highest number of collisions was reported in May, July, and August, with two incidents each. Single incidents were recorded in February, March, April, and October. The distribution of collisions across various months indicates a steady occurrence throughout the year, suggesting that such incidents are linked to routine navigational activity rather than seasonal factors. While most incidents were non-fatal, the occurrence of multiple collisions highlights the need for continued vigilance in traffic management, watchkeeping practices, and bridge operations. The consistent frequency reinforces the importance of proactive measures to reduce the risk of such incidents, even in cases where no injuries are reported.



Fire & Explosion

06 Number of Incident Reported

07 Total Death



02 Total Injury

Emergency preparedness through realistic fire drills, equipment checks, and crew familiarization must be strengthened.



KEY SUGGESTIONS

All vessels should maintain operational fire detection and suppression systems. Regular fire and emergency drills involving the entire crew should be scheduled, with scenarios rotating between day and night, and including hidden fire sources. Crews must be comfortable using extinguishers, fire hoses, and alarms. Visual checks of fire-prone areas should be performed during routine rounds. If any fire-related signs appear — such as overheating or strange smells — they must be reported without delay. Emergency escape routes and procedures should be made visible and well-understood by all. Post-incident analysis of any fire should be shared with the full fleet.

While incident onboard accounted for the highest share of all reported incidents in 2024—making up approximately 58% of the total—fire and explosion incidents, though fewer in number, resulted in the highest fatality count. Out of the 6 incidents recorded in this category, there were 7 deaths and 2 injuries, underscoring the sudden and high-impact nature of such events. Fires aboard vessels—whether originating in engine rooms, galleys, or cargo areas—can escalate rapidly, spreading beyond the initial source point and leaving little time for effective reaction. Despite being less frequent than other categories, fire-related events have the potential to cause significant physical harm, operational disruption, and psychological stress among crew. The loss of life in three of the six reported cases highlights the critical importance of continuous preparedness and crew proficiency in emergency response protocols. Notably, fire and explosion risks are present whether the vessel is underway or at anchor, emphasizing the need for round-the-clock vigilance. . Even a small fire must be treated seriously, with immediate containment and clear reporting procedures.



01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS

Sinking

In 2024, three sinking incidents were reported, resulting in four lives lost. These events remain among the most severe in maritime operations due to their rapid onset and limited reaction time. In one case, the sinking led to an oil spill, affecting nearby waters and prompting emergency containment measures. Though cleanup efforts were initiated, the incident serves as a reminder of how sinking accidents can extend beyond the crew to the environment. This highlights the importance of regularly tested bilge systems, clear flood response protocols, and crew drills that prepare for hull breach scenarios. Being prepared can make a critical difference in both safety and damage control.



Grounding



Three maritime grounding incidents were reported, none resulting in injuries or loss of life, though each generated significant operational delays and potential vessel damage. These occurrences primarily manifested during coastal navigation, environments where factors such as shallow waters, diminished under-keel clearance, or navigational lapses are identified as contributing elements. In every instance, prompt crew response was instrumental in preventing escalation and ensuring vessel stability and safety. The recurrence of these incidents, however, underscores a critical imperative for enhanced passage planning vigilance, meticulous tide monitoring, and effective bridge team coordination. Sustained attentiveness during restricted water transit is essential to mitigate future disruptions.

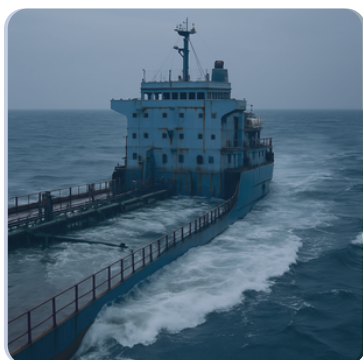
Armed Robbery & Piracy

In 2024, 2 piracy/armed robbery incidents (including suspicious activities) were reported, with no casualties. While limited in frequency, such incidents carry high strategic and emotional impact. They often involve armed threats, theft, or temporary capture. The effects of piracy go beyond physical harm — such incidents disrupt crew morale, operations, and international relationships. These two cases did not escalate to loss of life or injury, but the fact that they occurred is enough to warrant precaution, especially when vessels transit through piracy-prone waters. Furthermore, the Houthi attacks on shipping affecting Indian seafarers and the Global patterns on Maritime Security has been elaborated in section 7.



Loss of anchor / propeller

Two incidents were reported in 2024 involving the loss of anchoring or propulsion equipment, with no injuries or deaths. While not causing immediate danger, such incidents can become serious if they occur in high-traffic or shallow waters. A vessel without propulsion may drift into restricted zones or other ships, while the inability to anchor may affect station-keeping during operations. These mechanical issues may be tied to routine wear or unreported damage, but regardless of reason, their operational impact is significant. With no room for error near ports or during cargo transfers, having backup procedures is essential.



Flooding

There were 3 flooding incidents in 2024, with no injuries or fatalities. Flooding presents a serious threat to vessel stability and operations, and typically involve water entering through hull damage, open hatches, or machinery spaces due to failed seals or equipment. Quick action often prevents escalation, but when ignored or unnoticed, flooding can develop into larger emergencies like sinking or cargo damage. The limited number of incidents and lack of casualties suggest these were well-managed or detected early. However, because flooding can develop silently and rapidly, preparedness and awareness are key in every space below deck — especially in engine rooms, shaft tunnels, and bilge areas.

Man Overboard

In 2024, two Man Overboard incidents were reported, resulting in one fatality and one injury. Both cases occurred in May, making it the only month in which such incidents were recorded. Although the frequency was low, the severity of outcomes highlights the high-risk nature of these situations. Man overboard events typically demand immediate and well-coordinated response efforts, and even a single lapse of judgement can lead to serious consequences. The data reflects that while rare, these incidents carry significant operational and human impact, warranting continuous focus on onboard awareness, crew readiness, and adherence to safety protocols during deck operations.



Shipboard Incident Classification

Marine Casualty

OVERVIEW

The Deck department accounted for the highest number of marine casualties, likely due to frequent involvement in external operations and physically intensive tasks that increase exposure to vagaries of nature. Engine department casualties, though fewer in number, were often more severe, reflecting the hazardous nature of technical operations in enclosed and high-pressure environments. Saloon-related marine casualties were rare but notably serious, highlighting the critical need for emergency medical preparedness even in service-oriented roles typically perceived as low-risk.

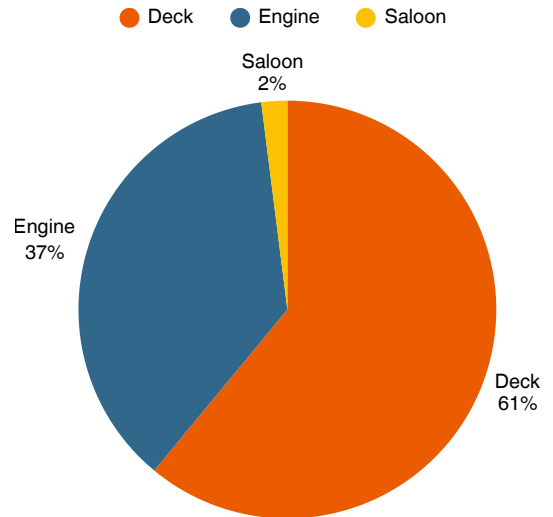


FIG 9: CLASSIFICATION OF SHIPBOARD INCIDENT - MARINE CASUALTY



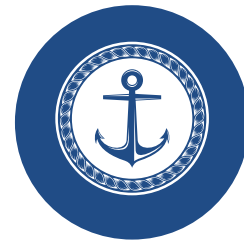
Deck

The Deck Crew had the highest incident volume, likely due to exposure to external operations and physical tasks.



Engine

Engine incidents, though fewer, were often severe due to technical complexities and enclosed environments.



Saloon

Saloon incidents were rare but serious, showing the need for emergency medical preparedness even in service roles.

AGE WISE ANALYSIS

| | |
|-------|------------|
| 29.7% | Age: 20-30 |
| 48.7% | Age: 30-40 |
| 16.2% | Age: 40-50 |
| 5.4% | Age: 50-60 |
| 0% | Age: 60+ |

RANK BASED ANALYSIS

The majority of reported incidents involve lower to mid-level operational ranks, with Fitters (7 cases), Able-Bodied Seamen (6), Seamen and Oilers (4 each), and Cadets, Bosuns, and Pumpmen (3 each) being most affected. This trend underscores the heightened exposure of these roles to onboard hazards, highlighting the critical need for targeted safety training, regular drills, and close supervision for crew in these positions.

Vessels Analysis- Marine Casualty

A total of 78 marine casualty incidents were recorded between January and December 2024.

Highlighting the operational challenges faced across various vessel classes. Bulk Carriers contributed the highest share, reaffirming their central role in global maritime logistics and the elevated risks tied to their frequent voyages and heavy load conditions. Other vessels such as Container Ships and Oil Product Tankers also reported significant incidents, reflecting the broader impact of cargo-intensive operations on maritime safety.

The data also reveals a clear seasonal pattern, with July and August marking the peak of marine casualties. These mid-year months likely coincide with a combination of adverse weather conditions, intensified shipping demand, and crew fatigue cycles — all of which contribute to heightened operational strain. The trend underscores the importance of proactive risk mitigation during high-activity periods to reduce the likelihood of preventable incidents.

FIG 10: Vessels Analysis - Marine Casualty.

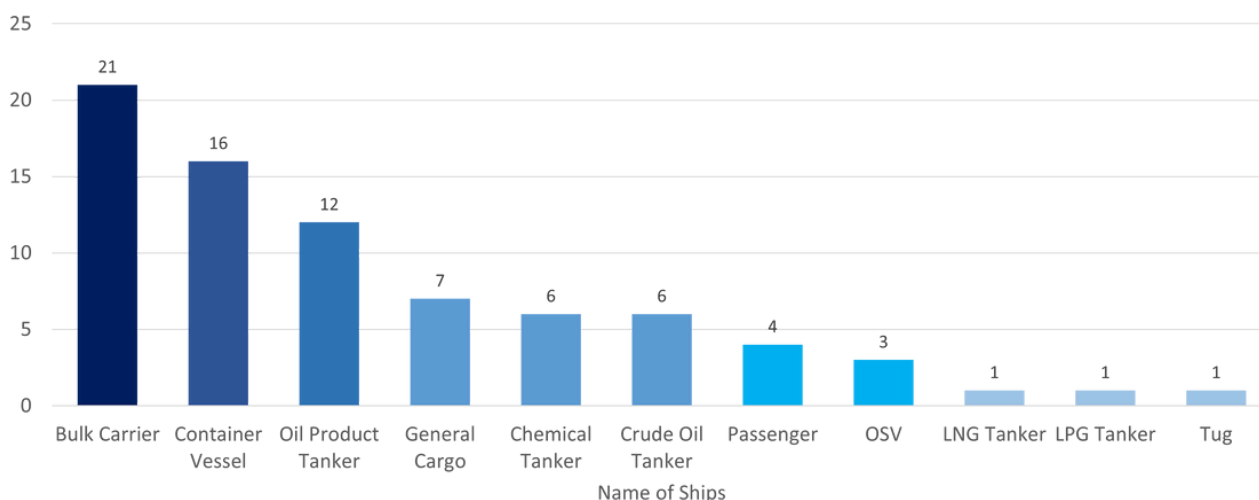
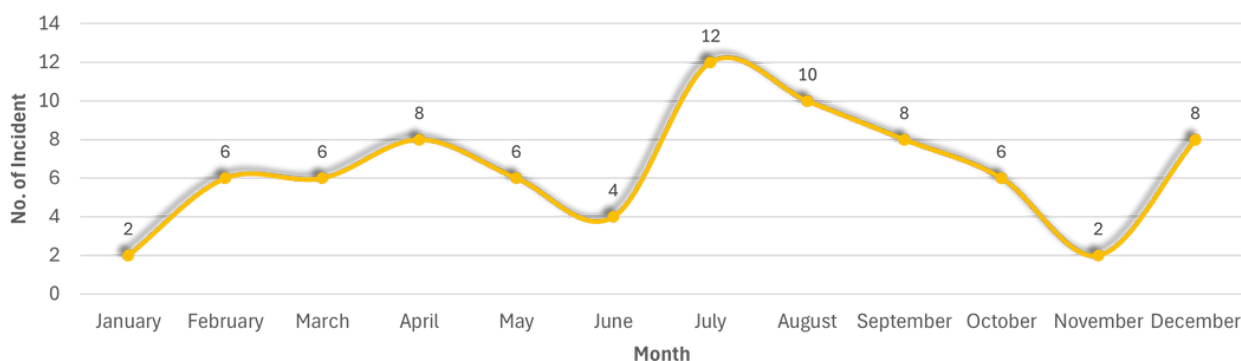


FIG 11: Month-wise Vessels Analysis - Marine Casualty.



01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS

Flag Administration- Marine Casualty Analysis

Data highlights that Indian seafarers continue to face incidents on vessels registered under a diverse range of international flags. Notably, the highest number of incidents were recorded under the Marshall Islands (14), Panama (11), and Singapore (11) registries, suggesting these flags are particularly active in operations where Indian crew are engaged. Liberia (6) and Hongkong (3) followed with moderate incident counts, while other flags, including Comoros, Cook Islands, and several additional countries, reported fewer cases. These figures point to the importance of implementing consistent safety protocols and rigorous onboard training across all vessel flags to effectively manage risks and support Indian seafarer welfare. Addressing these factors can strengthen the overall safety culture and ensure that Indian seafarers receive the protection they need regardless of the vessel's registry.

FIG 12: Flags with Most Reported Incidents - Marine Casualty

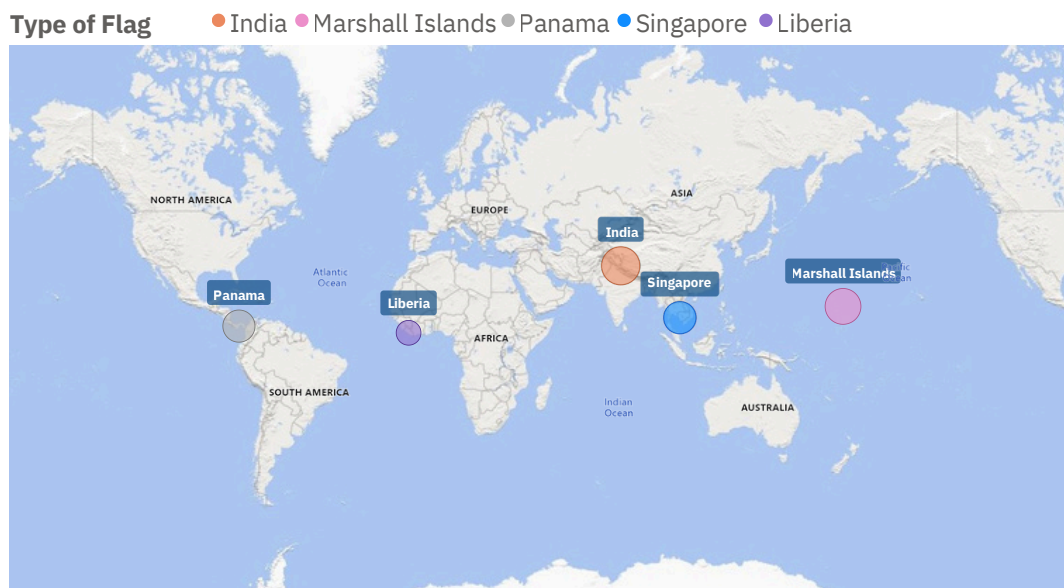


TABLE 8: Flag Registry Wise Casualties 2024 - Marine Casualty

| Name of Flag | Total No. of Incident | Name of Flag | Total No. of Incident | Name of Flag | Total No. of Incident |
|------------------|-----------------------|--------------|-----------------------|-------------------------------|-----------------------|
| India | 16 | Cook Islands | 2 | Gabon | 1 |
| Marshall Islands | 14 | Bahamas | 1 | Japan | 1 |
| Panama | 11 | Barbados | 1 | Malta | 1 |
| Singapore | 11 | Belgium | 1 | Portugal | 1 |
| Liberia | 6 | Bermuda | 1 | St.Vincent and the Grenadines | 1 |
| Hongkong | 3 | China | 1 | United States of America | 1 |
| Comoros | 2 | Denmark | 1 | United Republic of Tanzania | 1 |
| | | | | Total | 78 |

***DISCLAIMER: THE ANALYSIS OF FOREIGN-FLAGGED VESSEL PERFORMANCE IS BASED SOLELY ON INCIDENTS THAT OCCURRED WITHIN INDIAN WATERS AND THOSE INVOLVING INDIAN SEAFARERS ONBOARD FOREIGN VESSELS.**

01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS



04

Non-operational incident

Non-operational incident- Analysis 2024

OVERVIEW

The report records 61 fatalities under the category of Non-operational incident, which includes non-accidental and welfare-related incidents such as suicide, sickness onboard, injuries, and missing crew. These incidents reflect deeper systemic issues around physical and mental health conditions at sea.

Strikingly, the number of deaths under Non-operational incident surpasses those reported in Marine Casualty, emphasizing the urgent need to prioritize crew welfare, mental health support, and medical readiness as core components of maritime safety—not just operational compliance.

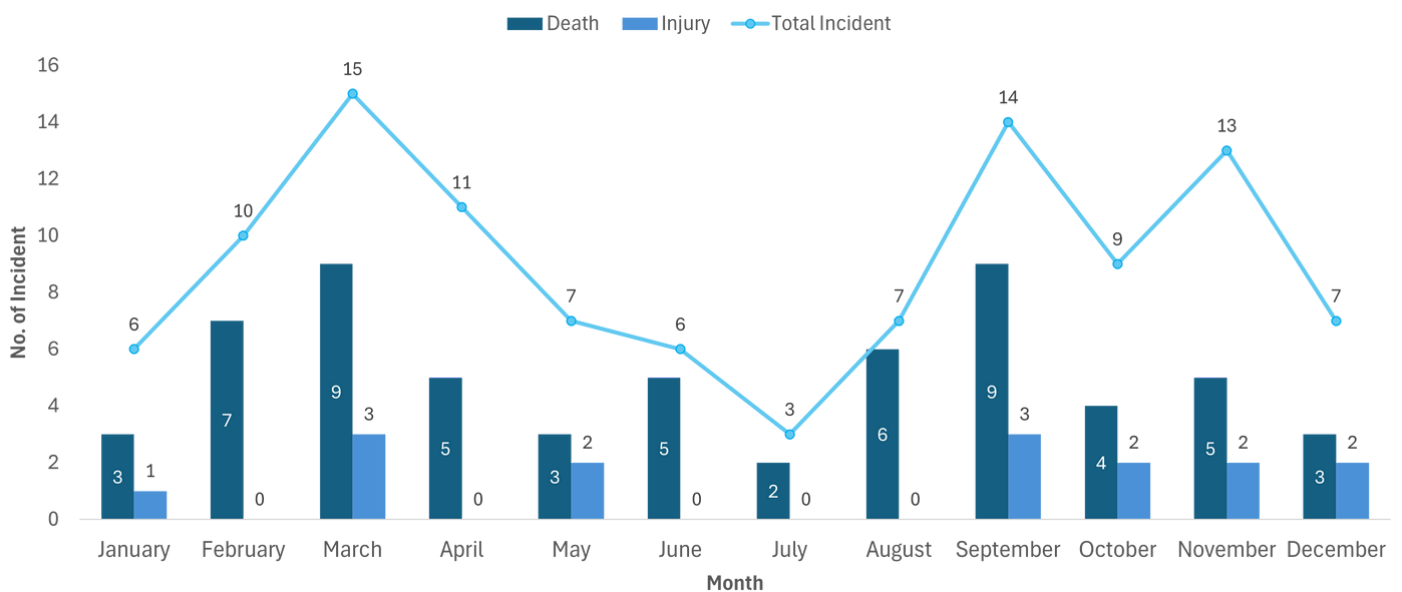


FIG 13: Month Wise Analysis of Non-operational incident



Death On-Board

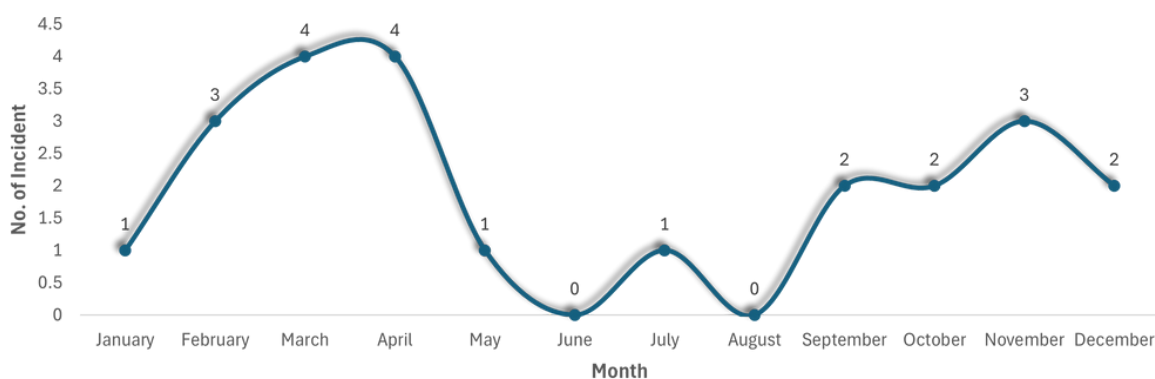
Deaths onboard have been recorded at a notably high rate, with a total of 25 fatalities reported. These figures reflect the scale of incidents occurring within onboard environments during the reporting period.

Desertion

In 2024, a total of 23 desertion incidents were reported, with no associated deaths or injuries. The highest concentration was observed in March and April, each recording four cases. This was followed by another notable rise in October and November, with three incidents reported in both months. These figures indicate that desertion tends to peak during the first and last quarters of the year, possibly aligning with psychological fatigue, dissatisfaction, or contract-related factors nearing completion. The consistency in these peak periods may also point to internal vessel dynamics, such as poor working conditions, lack of rest, or interpersonal conflicts, that intensify over time.

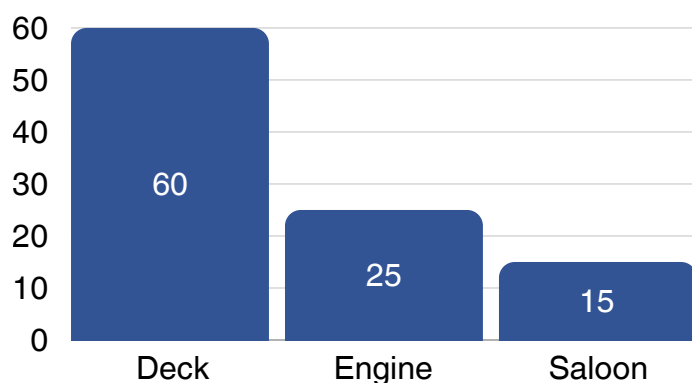
In contrast, June and August recorded no desertion cases, while the remaining months showed only one or two incidents, reflecting a more sporadic pattern. The absence of a uniform trend suggests that desertion may be influenced more by individual grievances than by external seasonal or operational factors. This highlights the importance of implementing proactive crew welfare programs, conducting regular one-on-one check-ins, and offering early intervention support. Strengthening shipboard communication, mental health resources, and ensuring timely shore leave may play a critical role in reducing such incidents going forward.

FIG 14: Month-wise analysis in desertion



DEPARTMENT WISE CLASSIFICATION

FIG 15: Department - Analysis (in %)



Desertion cases in 2024 were highest in the Deck department, particularly among Able Seamen (ABs) and Seamen, highlighting elevated turnover at lower operational ranks. This trend may reflect challenging working conditions, extended contracts, or limited career progression opportunities. The Engine department reported fewer desertions, mainly involving support positions such as Oilers and Motormen. Saloon staff showed minimal desertion incidents, though their presence indicates that crew welfare concerns extend beyond technical departments. Overall, the data points to a broader need for improved retention strategies and working conditions across all vessel departments.

OBSERVATIONS BASED ON AGE

The updated desertion data shows that seafarers aged 20 to 30 years make up the largest proportion of desertion cases. This group, largely composed of early-career individuals, often faces the harsh realities of maritime life for the first time. Challenges such as physical fatigue, emotional strain, cultural shock, and unmet expectations may drive impulsive decisions—particularly when the vessel is docked in foreign ports where the opportunity to leave becomes more feasible coupled with availability of extended family members in the country of occurrence. Without strong peer support or accessible counselling, desertion may seem like a way out from immediate stress.

Following closely are desertions among the 30 to 40 age group, typically mid-career professionals. Though more experienced, these seafarers may be under pressure due to growing responsibilities, extended sea time, or lack of progression. Their desertion often reflects deeper professional dissatisfaction, fatigue, or unresolved personal obligations. The lowest number of cases occurred in the 40 to 50 age group, indicating that more seasoned seafarers tend to demonstrate higher levels of resilience, career stability, and long-term commitment.

COUNTRY OF OCCURRENCE

Geographically, the United States accounted for 20 out of the 23 desertion cases, indicating that vessels calling at U.S. ports present a significantly higher risk of crew desertion. This may be due to a combination of factors including ease of access, perceived opportunities ashore, or more lenient immigration enforcement during shore leave. The remaining cases occurred in Spain (1), Germany (1), and Canada (1)—all developed countries with stable port infrastructure and possible avenues for undocumented stay, making them appealing exit points for distressed or disillusioned crew members. Notably, all desertion cases were concentrated in ports with high international traffic and liberal access protocols. These locations also tend to offer greater personal mobility and communication access, making exit from the port environment easier. In most instances, the desertion was discovered only after the vessel's departure clearance process had begun, indicating delayed detection at the local level.



Out of the 23 recorded desertion cases, 20 were reported in the United States, making it the most impacted country in the data set. The recurrence of cases suggests that certain ports may be perceived by crew members as more viable exit points.

SUGGESTION

Clear communication protocols must be in place to confirm crew members' return before departure. Authorities should be promptly notified in case of absence, and checks at local facilities should follow. Maintain accurate contact details for families and alternative communication methods. Immediate action is crucial to minimize desertion impacts and prevent delays.

Sickness Analysis

The analysis of sickness-related incidents highlights critical concerns regarding the management of medical emergencies at sea. Of the reported cases, 25 resulted in death onboard, while 11 individuals were evacuated but subsequently passed away ashore. Only 6 incidents involved non-fatal sickness cases managed onboard. This distribution suggests that a significant number of medical conditions may not be detected or escalated in a timely manner. The fatalities following evacuation indicate potential delays in assessing the severity of illness or initiating medevac procedures.

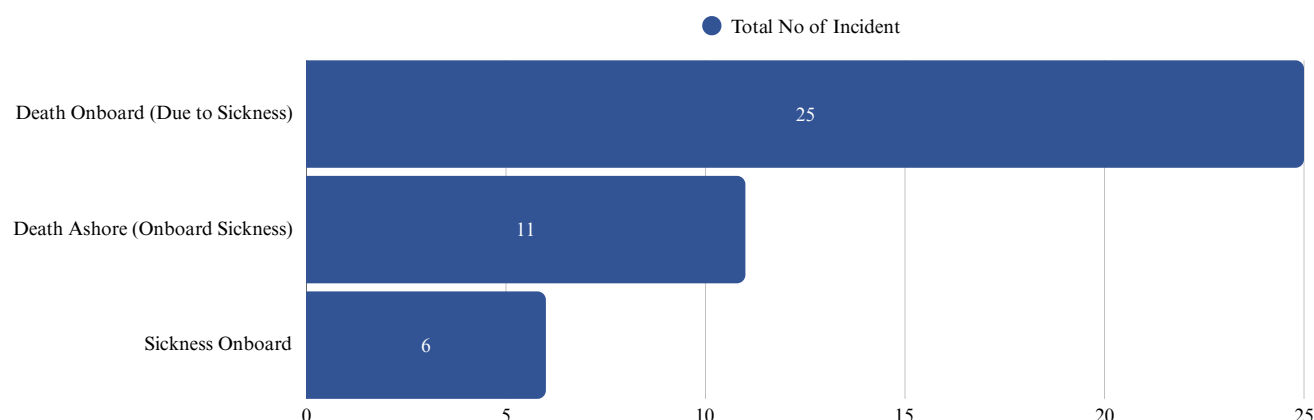


FIG 16: Total number of incident in sickness analysis

SICKNESS ONBOARD

Sickness among seafarers remains a critical concern, particularly in high seas with limited medical support.

A significant number of cases have progressed to fatal outcomes, either onboard or following delayed evacuation to shore.

These trends highlight the urgent need for timely identification, effective medical intervention, and structured response protocols. Enhancing onboard health systems, stringent pre-joining medical assessment, regular monitoring, and crew medical training are essential to ensure seafarer well-being.

PREVENTIVE MEASURES

- Implement regular crew health monitoring while sailing
- Upgrade medical facility and try to enable real-time remote consultations
- Stringent pre-joining medical assessment.
- Mandatory declaration of medication being taken by crew members.
- Equip vessels with essential medical supplies, diagnostic tools, and emergency medications.
- Ensure reliable internet or satellite communication to support telemedicine access.
- Partner with certified medical service providers for round-the-clock consultation availability.

Non-occupational incident (MEDEVAC)



In 2024, a single incident was reported under the category of Non occupational incident (MEDEVAC), involving three crew members who sustained injuries. Despite being the only such case, the impact of the injury sustained underscores the severity and concentrated impact of the event. The injuries necessitated immediate medical evacuation, indicating that onboard medical resources were inadequate to manage the situation.

Such incidents are often associated with negligence or accidents in performing routine tasks, leading to grievous injuries which prompts medical intervention to preserve life or prevent further harm.

While MEDEVAC cases are rare, they cause considerable operational disruption, including deviations from voyage plans and complex coordination with port and medical authorities.

Sickness onboard (MEDEVAC)

In 2024, a total of five incidents were recorded under the category of Sickness Onboard (MEDEVAC). These cases were reported in the months of April (1 incident), October (1 incident), and November (3 incidents). There were no deaths or injuries associated with any of these cases.

All five incidents required the medical evacuation of the affected crew members from the vessel. The concentration of three incidents in November represents the highest number in any single month under this category. The other two cases were individually reported in April and October, indicating that the incidents were spread across the second, third, and fourth quarters of the year.

The data does not indicate any clustering across consecutive months, except in the fourth quarter. All five incidents were categorized strictly as sickness-based evacuations, with no reported injuries or fatalities during or after the medical intervention.



01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

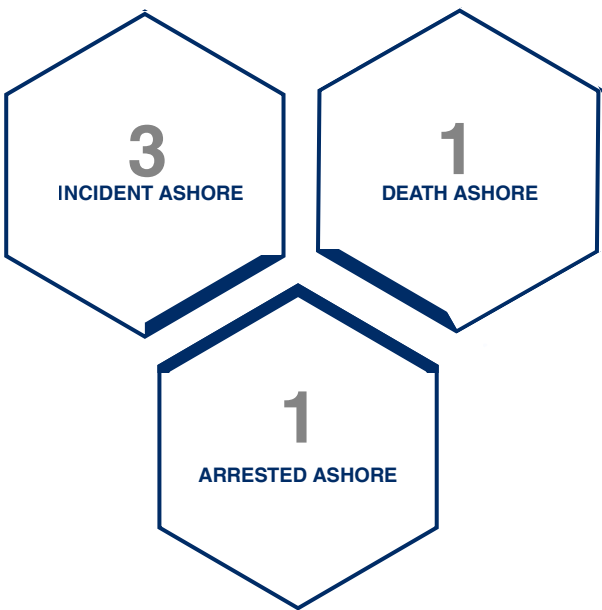
05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS

Ashore Incident Analysis



In 2024, ashore incidents were limited in number but revealed critical gaps in crew safety beyond the vessel. These events—ranging from an arrest and a fatality to multiple injuries—highlight the need to expand safety oversight into shore-based scenarios. Unlike onboard environments governed by structured protocols, ashore settings expose seafarers to legal, medical, and behavioural risks without the same level of control or support. The current safety framework often ends at the gangway, with little emphasis on port-specific hazards, local law awareness, or medical response readiness. There is also no mechanism to ensure continuous duty-of-care except individual sense of responsibility once a crew member steps ashore.

Injury

Injury in ashore incidents refers to physical harm sustained by seafarers while they are off the vessel but still involved in operational movements—such as transit between port facilities, official duties ashore, or during shore leave. Observations from 2024 indicate that such injuries, though few, expose a critical vulnerability in crew protection during off-ship activities. The absence of structured guidance, unfamiliar local conditions, and limited access to immediate medical response contribute to delayed assistance and underreporting. Unlike onboard scenarios where every injury is logged and treated promptly, ashore injuries are often handled informally or only addressed when they escalate, resulting in loss of response time and data accuracy. This gap highlights a pressing need to extend the safety net beyond the ship. Companies must implement pre-shore briefings with port-specific risk mapping, provide seafarers with emergency contact protocols, and establish local medical tie-ups to ensure timely intervention.

Wilful Default

Wilful default in ashore incidents refers to the intentional failure of a seafarer to fulfil duties or comply with expected conduct while off the vessel but still under professional obligation. This may involve deliberately not returning to the ship, violating local regulations, or knowingly disregarding company policies during shore leave. Even isolated cases of wilful default raise serious concerns, as they reflect underlying issues such as disengagement, dissatisfaction, or lack of awareness of the consequences. Unlike accidental or health-related incidents, wilful defaults are conscious decisions that can lead to legal complications, operational delays, and reputational damage for the company. Such behaviour highlights the need for clearly defined responsibilities during shore leave, structured conduct briefings, and access to grievance redressal and mental well-being support.

| | | | |
|-----------------------------|----------------------|----------------------------|--------------------------------|
| 01 INTRODUCTION | 02 ANALYSIS OF DATA | 03 MARINE CASUALTY | 04 NON-OPERATIONAL INCIDENT |
| 05 FISHING VESSEL INCIDENTS | 06 NOTABLE INCIDENTS | 07 ETV DEPLOYMENT OVERVIEW | 08 MEDICAL EVACUATION-ANALYSIS |

Missing/MOB



OVERVIEW

In 2024, a total of 20 incidents were reported under the Missing / Man Overboard (MOB) category. These incidents involved crew members who were reported missing during vessel operations, triggering immediate onboard emergency procedures and formal reporting protocols. Each case carries significant operational, procedural, and emotional weight, requiring coordination with authorities and often resulting in unresolved outcomes. While circumstances differ from case to case, MOB incidents remain one of the most serious classifications recorded, reflecting the high level of sensitivity and impact they have on both crew welfare and maritime operations.

Suicide

A total of 5 suicide incidents of suicide were reported in the year 2024. Tragically, 4 resulted in deaths and 1 resulted in injury. The highest number of incidents were reported in February (3), with single incidents occurring in both November and December.

This pattern suggests a concentration of suicide-related incidents early in the year, which may indicate potential stress factors or gaps in mental health support that could correlate with seasonal or operational factors.

The recommendations as follows:

- Provide regular psychological counselling (onboard or remote) and create a supportive environment for emotional wellbeing.
- Train crew members and officers to recognize early warning signs of distress and encourage a supportive "buddy system."
- Enable seafarers to report emotional distress anonymously, ensuring privacy and timely intervention.



01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS

Shipboard Incident Classification Non-operational incident 2024

OVERVIEW

An analysis of non-operational incidents by shipboard division reveals that the Deck department accounts for the majority of incidents, contributing to 50% of the total cases reported. These primarily include injuries, falls, illnesses and underlying medical conditions. The Engine department follows closely with 42%, with incidents largely linked to the demanding nature of engine room operations, which involve strenuous physical activity and high temperatures, requiring a higher physical ability. The Saloon department, while least affected, recorded 8% of the incidents, primarily involving catering staff injuries and illness. This distribution highlights the need for targeted safety and health measures tailored to the environment of each shipboard division.

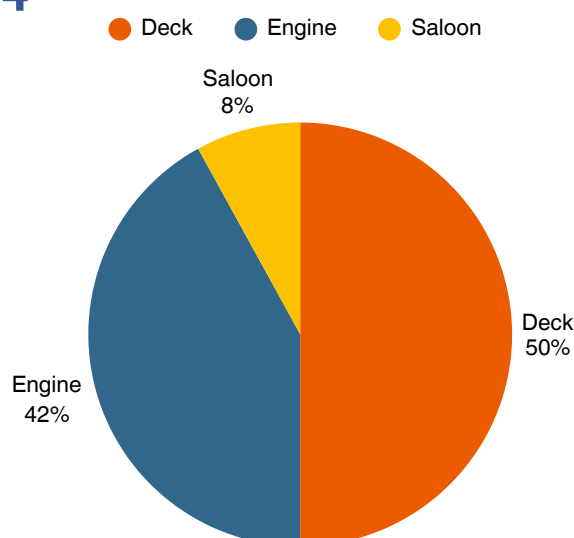


FIG 17: CLASSIFICATION OF SHIPBOARD INCIDENT - NON-OPERATIONAL INCIDENT



Deck

The Deck Crew had the highest incident volume, likely due to exposure to external operations and physical tasks.



Engine

Engine incidents, though fewer, were often severe due to technical complexities and enclosed environments.



Saloon

Saloon incidents were rare but serious, showing the need for emergency medical preparedness even in service roles.

AGE WISE ANALYSIS

| | |
|-------|------------|
| 29.4% | Age: 20-30 |
| 29.4% | Age: 30-40 |
| 16.5% | Age: 40-50 |
| 16.5% | Age: 50-60 |
| 8.2% | Age: 60+ |

RANK BASED ANALYSIS

Ratings and trainee seafarers continue to represent a disproportionately high share of non-operational incidents, in contrast to markedly lower incidence rates among senior officers. This disparity points to a pronounced vulnerability within the lower tiers of shipboard hierarchy—likely stemming from limited experience, inadequate preparedness, job expectations vis a vis the reality of onboard work environment and gaps in awareness or access to safety resources. The data clearly indicate the need for targeted interventions aimed at junior crew members, including enhanced onboard mentoring, structured safety training, and improved communication protocols.

01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

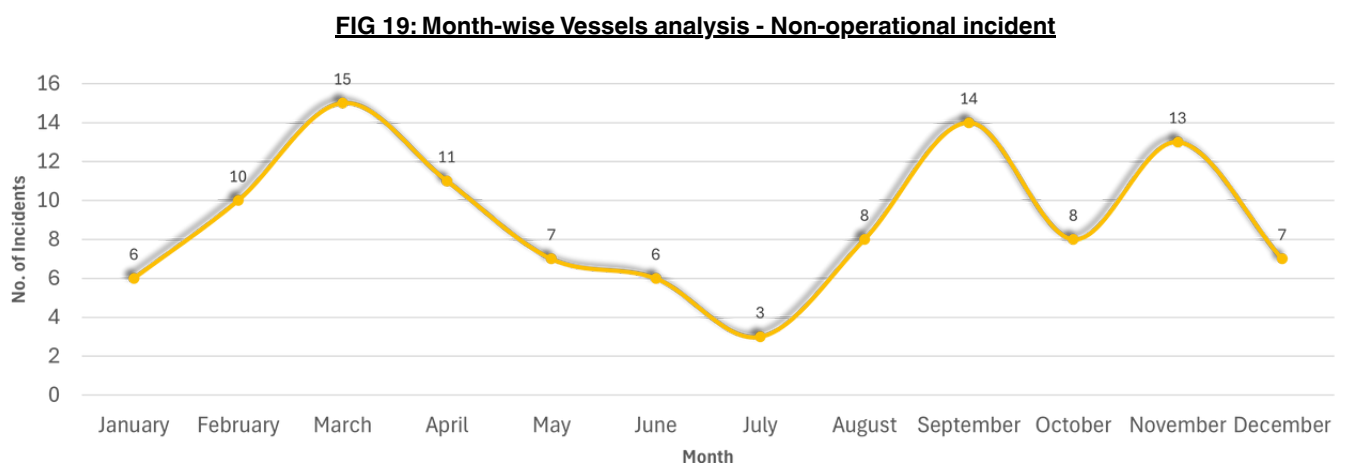
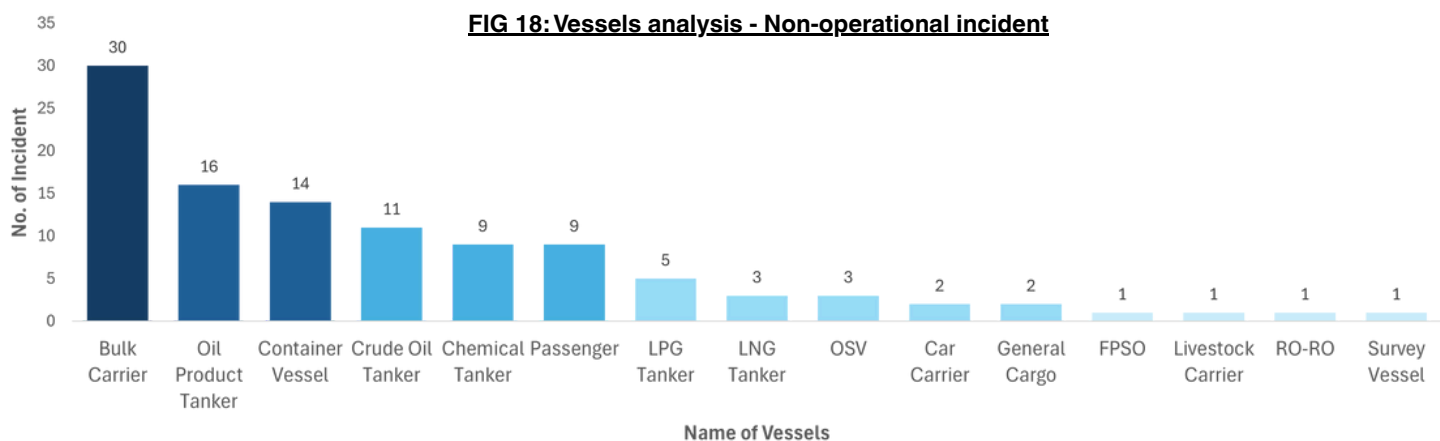
08 MEDICAL EVACUATION-ANALYSIS

Vessel Analysis- Non operational Incident

A total of 108 Non-operational incident incidents were recorded between January and December 2024.

Bulk Carriers recorded the highest number of injuries under Non-operational incident in 2024, with a total of 30 incidents, making them the most affected vessel type. This was followed by Oil Product Tankers (16 incidents) and Container Vessels (14 incidents), both of which also showed consistent injury reports across the year. These trends point to the elevated physical demands and operational complexity faced by crew members aboard high-capacity or high-risk cargo vessels.

From a temporal perspective, March, October, and November stood out as the months with the highest reported injuries, indicating seasonal peaks in crew-related incidents. These months likely coincide with crew changeovers, operational surges, or fatigue accumulation periods. In contrast, July and August reflected relatively lower incident counts, possibly due to better environmental conditions or reduced workloads. The data reinforces the importance of anticipating and managing injury risks around operational high points in the maritime calendar.



Flag Administration- Non-Operational Incident Analysis

The 2024 data on Non-Operational casualties involving Indian seafarers shows that incidents were reported on vessels registered under various international flags. Marshall Islands (21 incidents), Liberia (17), Panama (13), and Bahamas (12) accounted for the highest number of incidents, highlighting a higher number of incidents on Flags of Convenience (FOCs). Flags like Hongkong (8), Singapore (7), and Malta (5) recorded moderate numbers, while other countries such as Bermuda, Denmark, Isle of Man, Norway, and several others reported single or very few incidents. This distribution underscores the need for consistent safety measures, robust training, and effective reporting systems to manage risks and ensure the welfare of Indian seafarers serving across different vessel flags.

FIG 20: Flags with Most Reported Incidents - Non-operational incident



TABLE 9: Flag Registry Wise Casualties 2024 - Non-operational incident

| Name of Flag | Total No. of Incident | Name of Flag | Total No. of Incident | Name of Flag | Total No. of Incident |
|------------------|-----------------------|--------------|-----------------------|-------------------------------|-----------------------|
| Marshall Islands | 21 | Malta | 5 | Japan | 1 |
| Liberia | 17 | Bermuda | 2 | Kuwait | 1 |
| Panama | 13 | Denmark | 2 | Saint Kitts and Nevis | 1 |
| Bahamas | 12 | Isle of Man | 2 | St.Vincent and the Grenadines | 1 |
| India | 10 | Norway | 2 | Togo | 1 |
| Hongkong | 8 | Cameroon | 1 | | |
| Singapore | 7 | Cyprus | 1 | | |
| | | | | TOTAL | 108 |

*DISCLAIMER: THE ANALYSIS OF FOREIGN-FLAGGED VESSEL PERFORMANCE IS BASED SOLELY ON INCIDENTS THAT OCCURRED WITHIN INDIAN WATERS AND THOSE INVOLVING INDIAN SEAFARERS ONBOARD FOREIGN VESSELS.



05

Fishing Vessel Incidents On Indian Coast

Incident Involving Fishing Vessel

It is observed that fishing vessel casualties and activities remained consistent in both 2023 and 2024, with eight incidents reported each year. Injuries and deaths were evenly split, highlighting an ongoing safety concern. Foreign-flagged vessels accounted for most incidents, and daytime incidents were more frequent than nighttime ones. Among MMD jurisdictions, Kandla recorded the highest number of cases, followed by Kochi and Chennai. Winter saw the highest activity levels, possibly due to seasonal fishing patterns, while other seasons had fewer reports.

ANNUAL DISTRIBUTION

2023

08

2024

08

CONSEQUENCES

2023

INJURY

02

DEATH

02

2024

INJURY

02

DEATH

02



MMD JURISDICTION

TOTAL 16

KANDLA

7

KOCHI

3

CHENNAI

3

REST

3

• ALL ABOVE FIGURES REPORTED CONCERN FISHERMEN ONLY

01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

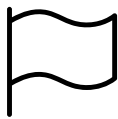
07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS

To reduce incidents involving Indian Fishing Vessels (IFVs), the Directorate has adopted a phased strategy focused on prevention and coordination. Key measures include the installation of AIS transponders on IFVs, targeted awareness campaigns in high-risk zones in critical areas. A centralized reporting mechanism, including mobile app-based platforms, is being considered alongside the implementation of dynamic geofencing. The Directorate is also planning along with Indian Coast Guard active engagement with State Fisheries Departments, Maritime Boards, and fishing communities to formulate practical, region-specific safety plans. Collisions at sea are preventable—with technology, training, and regulation serving as the foundation. A unified, multi-agency effort is essential to ensure safer Indian waters.



• ALL ABOVE FIGURES REPORTED CONCERN FISHERMEN ONLY



FLAG OF COLLIDED VESSEL

INDIAN FLAG

6

OTHER FLAGS

10



TIME OF THE DAY

NIGHT

5

DAY

11



SEASON

WINTER

10

REST

6

01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS



06

Notable Incidents

MV Dali allision and the Collapse of the Francis Scott Key Bridge, Baltimore

INCIDENT OVERVIEW

On 26 March 2024, the MV Dali, a large Singapore-flagged container vessel with Indian officers and crew, collided with the Francis Scott Key Bridge in Baltimore, USA. The impact caused collapse of the central span of the bridge resulting in the death of six bridge maintenance crew. The incident led to the closure of a critical U.S. maritime transport corridor and was officially classified as a “Major Marine Casualty” under Title 49 of the U.S. Code of Federal Regulations.



India, as a Substantially Interested State (SIS), responded immediately through the Directorate General of Shipping (DGS), which deployed a senior technical investigation team to the United States. The team, comprising a Nautical Surveyor and an Engine & Ship Surveyor joined the U.S. National Transportation Safety Board (NTSB) and United States Coast Guard (USCG) investigation.

01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS

The DGS team boarded the vessel at the incident site and reviewed critical evidence including Voyage Data Recorder (VDR) data, equipment logs, radar feeds, and bridge audio recordings. The investigation confirmed that a complete blackout occurred approximately four minutes prior to impact, leading to a loss of propulsion and steering. Though emergency systems restored partial functionality, helm and anchor responses were insufficient to prevent the casualty. Notably, key navigation displays ceased recording due to power-saving settings, requiring services of equipment manufacturers for analysing reasons. Equipment manufacturers were also utilised to understand the reason for opening of electrical breakers that fed most of the vessel equipment and lighting to fail



The DGS also engaged with the Unified Command Center overseeing salvage and emergency response. The technical engagement ensured the Indian maritime administration had access to all key developments in the case including aspects related to welfare of Indian and a Sri Lankan crew member.

The investigation raised concerns about:

- Failure of electrical breakers and power systems without prior alarm;
- Delayed anchor deployment, and limited effectiveness once executed;
- Early release of tugs after departure, which reduced maneuvering options in case of emergency.

The DGS's participation safeguarded the interests of Indian seafarers and ensured that investigative attention remained focused not only on human factors but also on potential technical failures and systemic issues. Their role helped maintain objectivity and transparency in an international high-stakes investigation.

In recognition of the gravity of the incident and the effective coordination undertaken, the DGS's proactive engagement is a testament to India's maturing role as a responsible maritime state. The insights gained would contribute to future policy recommendations regarding emergency power systems, tug assistance protocols, and data capture during navigation. The Directorate continues to follow the ongoing proceedings and participate in subsequent phases of the inquiry.

01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS

MAERSK FRANKFURT - Fire On Board

INCIDENT OVERVIEW

On 19 July 2024, a significant fire broke out aboard the container vessel MAERSK FRANKFURT (IMO 9969065), flagged with Panama, approximately 33 nautical miles off the coast of Goa. The fire was reported at 1410 IST in position 14°05'N, 072°56'E.

The crew complement included 21 seafarers of Filipino, Ukrainian, Montenegrin, and Russian nationality. Unfortunately, one crew member—a Filipino Able-Bodied Seaman—succumbed to injuries sustained in the fire



01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS

Firefighting Operations and Coordination

The firefighting response was a sustained, multi-agency effort involving coordination between Indian and international stakeholders over several weeks:

01 Initial Response

The Indian Coast Guard (ICG) promptly deployed assets including ICGS Samudra Prahari, Sachet, Varaha, and aerial support. ETV Water Lily was dispatched by Directorate General of Shipping from Mumbai. Due to limited access to the seat of fire, aerial surveys via ICG Dornier aircraft and helicopters guided response planning.

Fire Containment Strategy 02

Firefighting efforts targeted container bays 14–22, with smoke also observed in Bay 26. Firefighting techniques included boundary cooling, DCP aerial drops, and ongoing monitoring. The operation was supported by Vessels 'Albatross 5', 'Creative 1', 'Valiant Vortex', and 'Canara Jog 1' which operated in rotation, alongwith ICG vessels within a 2 NM radius.



03 Engagement of Professional Salvors

Following an emergency coordination meeting on 20 July, the Directorate General of Shipping facilitated the deployment of a Salvage team. A 19-member team was airlifted via ICG helicopters with logistical support through New Mangalore Port and Goa Airport. Salvage gear was flown in by charter, and clearances were expedited. Onboard, the team conducted compartment assessments, gas measurements, and dewatering, installing portable ventilation and pumps in Holds 2 and 3 to control toxic vapours and internal temperatures. Gas levels, including hydrogen sulphide and cyanide, were monitored every two hours across key spaces.

Environmental Monitoring and Preventive Measures 04

The Directorate General of Shipping, Indian Coast Guard, and Pollution Response authorities actively monitored for marine pollution risks. Although firefighting water entered the duct keel and lower cargo holds, measures were taken to prevent overboard discharge. Continuous coordination ensured containment of potential contamination and planning for a Place of Refuge (PoR) was initiated for safe berthing and cargo discharge.

01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS

Fire On Board

MAERSK FRANKFURT (IMO no – 9969065)



COORDINATION AND MONITORING

Throughout the incident, the Directorate General of Shipping coordinated closely with the Indian Coast Guard, the ship manager, salvors, and local authorities. Multiple SITREPs were compiled and disseminated to ensure continuous situational awareness. A safe port of refuge was identified to offload affected containers and it was ensured that no marine pollution resulted from the casualty.

CREW SAFETY AND WELFARE

Despite the fire, the health and morale of the remaining 20 crew members remained stable. Salvage and response teams worked in close coordination with the vessel master and ship's staff to ensure onboard safety. Emergency communication systems, LSA/FFE (except localized damage), and ship's systems remained functional throughout operations.

CONCLUSION

The MAERSK FRANKFURT fire incident underscores the critical importance of rapid, coordinated multi-agency responses in handling complex marine casualties. The joint response prevented escalation, limited environmental impact, and maintained crew safety. Investigations into the cause of the fire, cargo classification, and shipboard response effectiveness are ongoing. Final recommendations will follow in collaboration with the Flag State and IMO-mandated protocols. The investigation report from the flag state (Panama) is still pending.

01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS

Sinking Of MV ITT PUMA

■ INCIDENT OVERVIEW

At 1615 hours on 25 August 2024, DGComm Centre received information from the Company Security Officer (CSO) that MV ITT Puma, an Indian-flagged cargo vessel carrying approximately 2,090 metric tonnes of sand, had lost contact while en route from Kolkata to Port Blair. Prior to the loss of contact, the vessel had reported a 30-degree list to port under very rough weather conditions, with 2.5 to 3.0-meter swells and heavy rain.

An earlier report from the shipowners at 1000 hrs stated that the list began due to suspected cargo shift. The crew attempted corrective ballasting of the starboard double bottom tanks, briefly stabilizing the list at 18 degrees. However, water ingress was subsequently reported in the port-side crew cabins through the shell plating, worsening the situation.

At 1215 hrs, the vessel reversed course towards Sagar Island in an attempt to reach shelter, but continued listing. The final onboard communication at 1545 hrs indicated that the crew were abandoning ship and launching life rafts. The vessel sank shortly thereafter at 1545 hrs.

■ RESCUE AND RESPONSE EFFORTS

The DGComm Centre immediately escalated the incident to MRCC Chennai and MRSC Haldia. The Indian Coast Guard dispatched ICGS Sarang and coordinated the deployment of a Dornier aircraft to assist in the search and rescue (SAR) operation. Another company vessel, ITT Lion, was also diverted to the site.

Out of the 14 crew members:

- 11 were rescued by Indian Coast Guard assets (ICGS Sarang and ICGS Amogh).
- 2 were confirmed to have drowned with the vessel, including the Master and Chief Officer.
- 1 crew member remained missing and is presumed to be deceased.

Two life rafts were recovered at 20°27.42'N, 088°36.88'E. The Indian Coast Guard continued SAR operations through 27 August using both air and sea assets.



■ POST-INCIDENT ACTIONS

A preliminary inquiry was initiated by MMD Kolkata. All rescued crew were interviewed on 28 August 2024, and the next of kin of missing crew members were invited for a formal condolence and briefing on 3 September.

The Indian Register of Shipping (IRS) was directed to conduct urgent inspections of all vessels under the ownership of ITT Lines and those registered with Kolkata MMD scheduled for de-registration by 2026.

Vessel Masters of ITT Lines were instructed to submit certified cargo securing plans to ensure proper stowage and avoid recurrence of cargo shift-related casualties.

■ OBSERVATIONS

The incident is tragically similar in nature to a past case involving ITT Panther (2017), where cargo shift in adverse weather conditions led to vessel loss. This recurrence underscores the urgent need for stricter oversight of cargo handling practices and vessel seaworthiness.

01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS



07

ETV DEPLOYMENT

ETV Deployment Overview - 2024

ETV WATER LILY DEPLOYMENT

Emergency Towing Vessels (ETVs) Water Lily was deployed for a total of 36 days across four operations. Key engagements included:

- Support to the Indian Navy during Exercise Prasthan (twice)
- Deployed for a major 27-day emergency operation to assist the Maersk Frankfurt (Panama) following a container fire near Karwar, as requested by the Indian Coast Guard.
- Remained on standby for the OSV Ocean Turquoise (Marshall Islands), reported adrift.

ETV OCEAN BLISS DEPLOYMENT

ETV Ocean Bliss was mobilized twice in 2024 in anticipation of cyclonic activity on the east coast.

- Mobilised at Chennai in full readiness ahead of a developing cyclone over the east-central Bay of Bengal.
- Placed on standby during Cyclone 'DANA', prepared to respond if required.



The deployment of ETVs across Indian ports in 2024 illustrates their critical role in supporting maritime safety and readiness. From participating in coordinated naval exercises to responding to vessel emergencies and weather-related contingencies, these vessels continue to serve as essential assets in India's maritime emergency response infrastructure.

01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS



08

Medevac Analysis - Indian Waters

Medical Evacuation- Analysis

OVERVIEW

The past year saw a series of swift and well-coordinated medical evacuation (MEDEVAC) operations across India's maritime zones, led primarily by the Indian Coast Guard in collaboration with the DGComm Centre and MRCCs. A total of 38 successful evacuations were recorded, underscoring the readiness and operational efficiency of maritime emergency response systems.

Each operation, often undertaken under adverse weather or night-time conditions, demonstrated exemplary coordination between vessel masters, MRCCs, and aerial or surface assets of the Indian Coast Guard. These interventions not only reflect the critical importance of maritime medical readiness but also highlight the value of continuous training, rapid information exchange, and logistical preparedness in safeguarding lives at sea.



01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL
INCIDENT

05 FISHING VESSEL
INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT
OVERVIEW

08 MEDICAL EVACUATION-
ANALYSIS

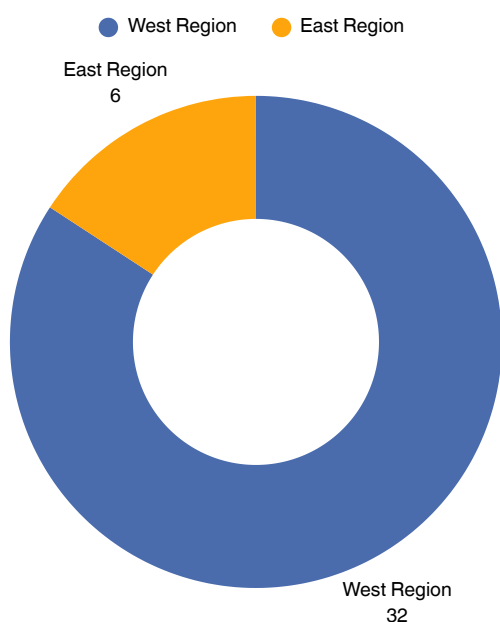


FIG 21: Regionwise distribution

REGIONAL ANALYSIS

In 2024, a total of 38 medical evacuations (MEDEVAC) were reported across Indian maritime zones, with a significant regional disparity. The west coast accounted for the majority, recording 32 cases, while only 6 were reported from the east coast. This trend indicates a higher concentration of maritime activity or medical emergencies in western waters. Factors such as denser traffic routes, port proximity, or environmental exposure may contribute to this imbalance. The data underscores the need for enhanced medical preparedness and response infrastructure along the west coast.

TYPE OF VESSELS

Fishing vessels accounted for the highest number of medical evacuations in 2024, with 17 cases, highlighting the hazardous nature of their operations and lack of onboard medical facilities. Cargo ships and tankers followed with 8 and 7 cases respectively, often linked to long voyages, exposure to hazardous materials, and physically demanding work environments. While less frequent, medical evacuations from tugs, passenger vessels, and other ship types indicate that health emergencies are not limited to high-risk vessels. The data underscores the importance of medical readiness across all segments of the maritime sector.

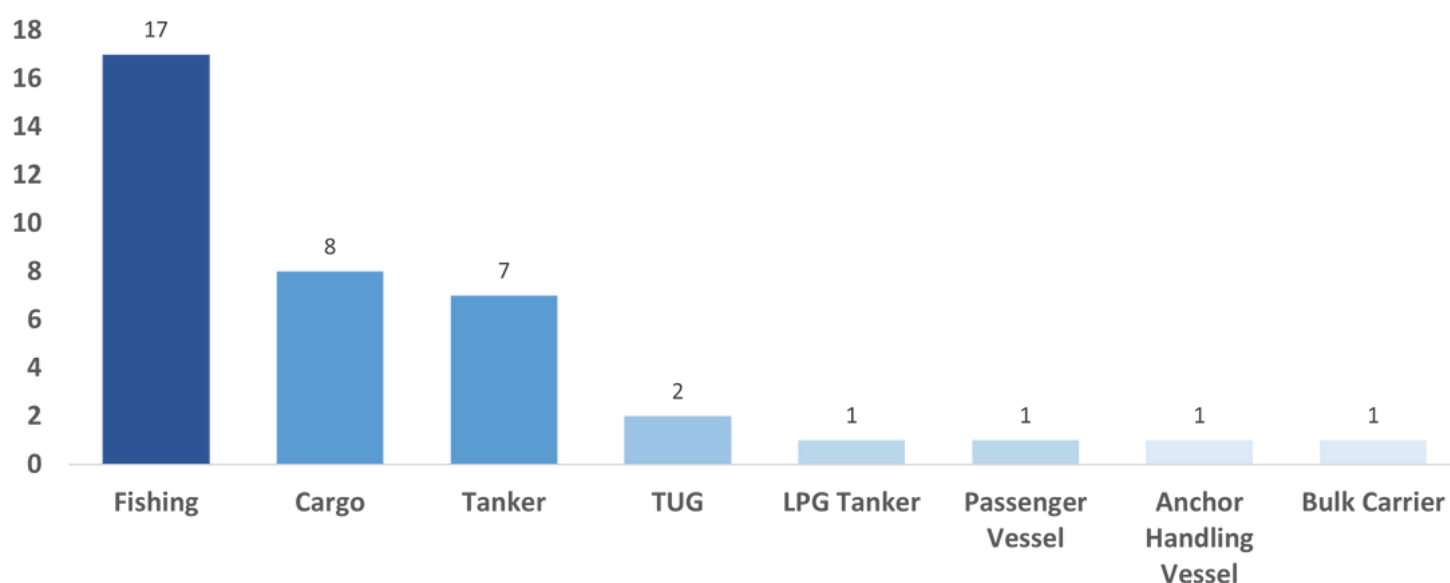


FIG 22: Evacuation Incidents Across Vessel Types

01 INTRODUCTION

02 ANALYSIS OF DATA

03 MARINE CASUALTY

04 NON-OPERATIONAL INCIDENT

05 FISHING VESSEL INCIDENTS

06 NOTABLE INCIDENTS

07 ETV DEPLOYMENT OVERVIEW

08 MEDICAL EVACUATION-ANALYSIS

Contributors

Capt. Harinder singh
Nautical surveyor & Deputy Director General
(Tech.)
Directorate General of Shipping

Capt. Porus R. Disawalla
Master Mariner - In Charge
LRIT/DGCOMM CENTRE - Nav Bhavan

Manneck Vesuna
Legal Assistant
Directorate General of Shipping

Mr. Naresh Kannaa
Business Analyst

Ms. Purvaja Fursule
Data Analyst

Mr. Norbert Fernandes
Radio Officer-DGCOMM

Mr. Rakesh Mulchand Shah
Radio Officer -DGCOMM

Mr. Sahadev Koley
Radio Officer - DGCOMM

Mr. Shailendra D. Khot
Radio Officer – DGCOMM

Mr. Sikar K. Sen
Radio Officer - DGCOMM

Mr. Anthony D'silva
Radio Officer - DGCOMM

Mr. Kailas S. Jadhav
Radio Personnel - DGCOMM

Mr. Vijay J. Bhadkamkar
Radio Officer – DGCOMM

Mr. Aleti Gurumurthy
Radio Personnel - DGCOMM

Mr. Anilkumar K.
Radio Personnel -DGCOMM



END OF REPORT